IBM Field Engineering Education
Supplementary Course Material

DOS Maintenance Facilities

PREFACE

This publication is primarily intended for use by FE Customer engineers enrolled in Course 50220. It contains all figure references and appendixes called out in Self-Study Course SR25-5640.

Second Edition (September 1973)
This is a major revision of, and makes SR25-5673-0 obsolete.

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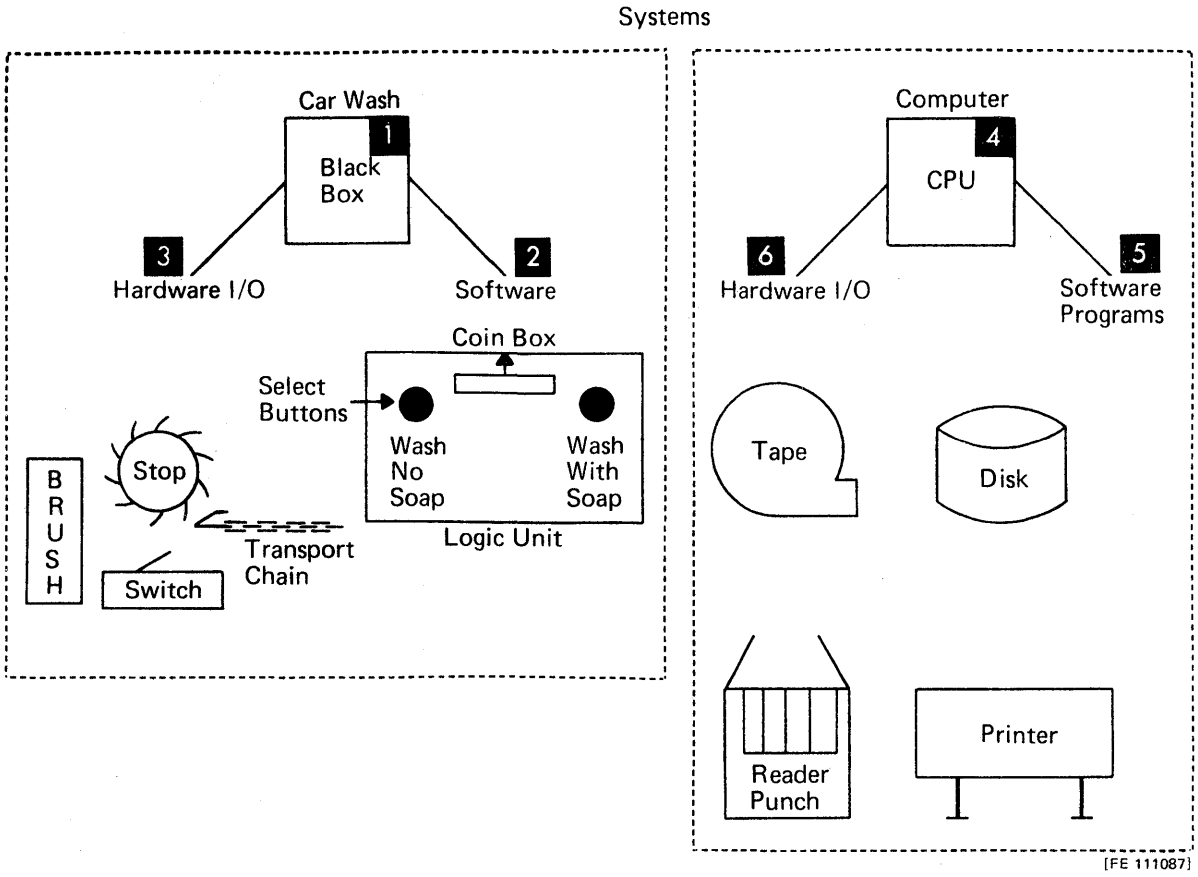


Figure 1.1 Systems Analogy

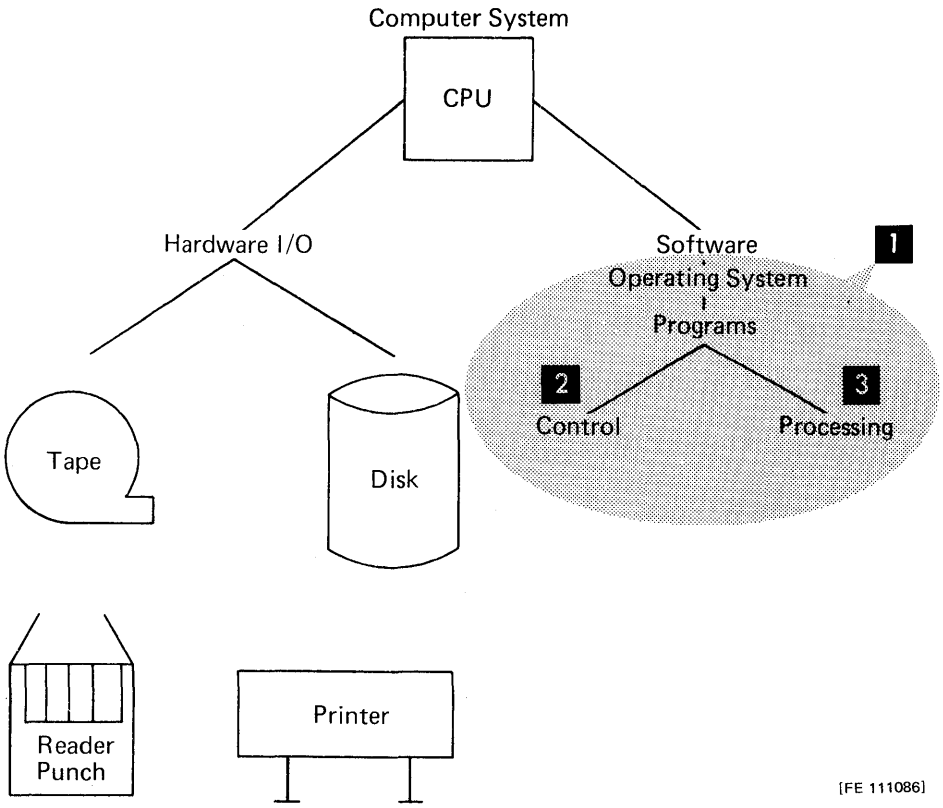


Figure 1.2 Operating System

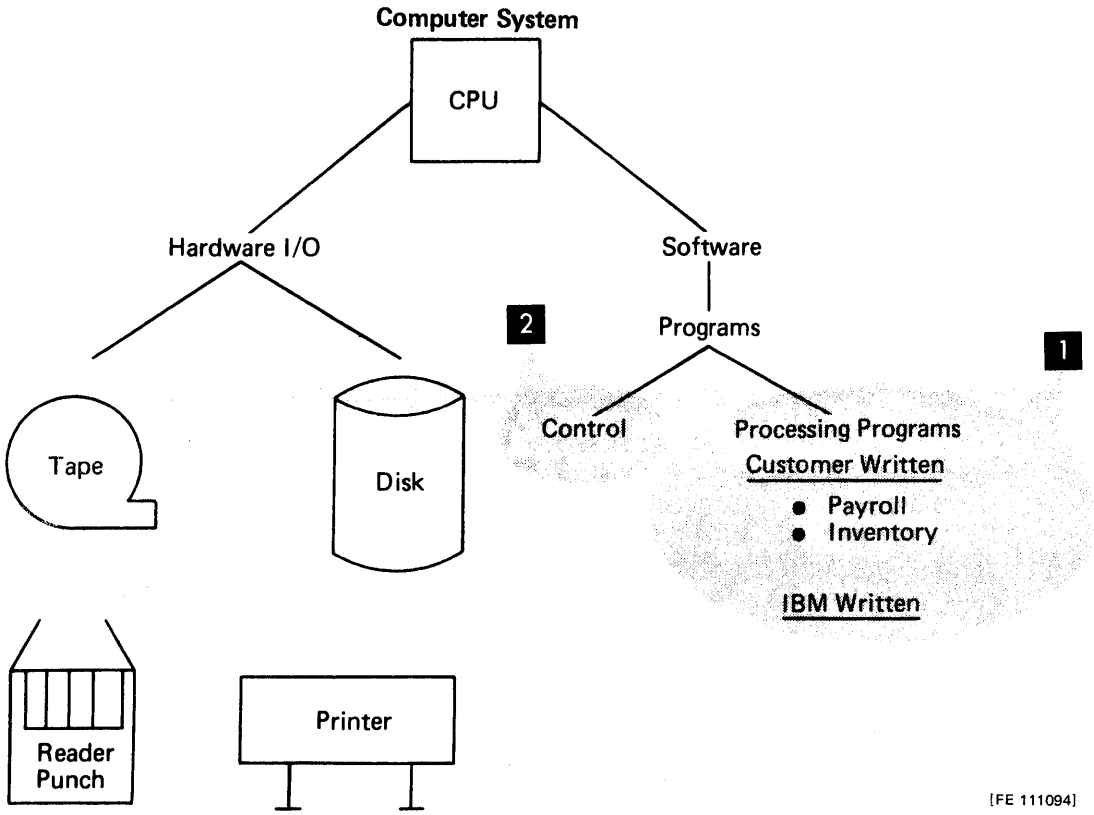


Figure 1.3 Processing Programs

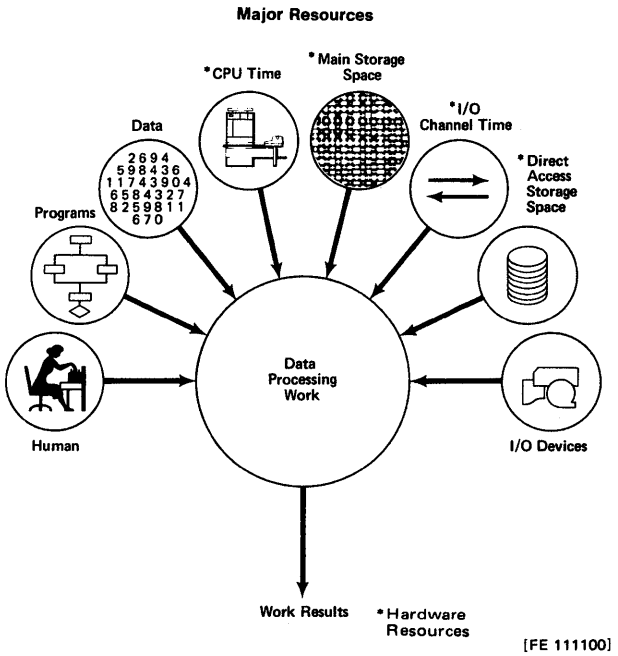


Figure 1.4 Resources Required to Process Data Automatically

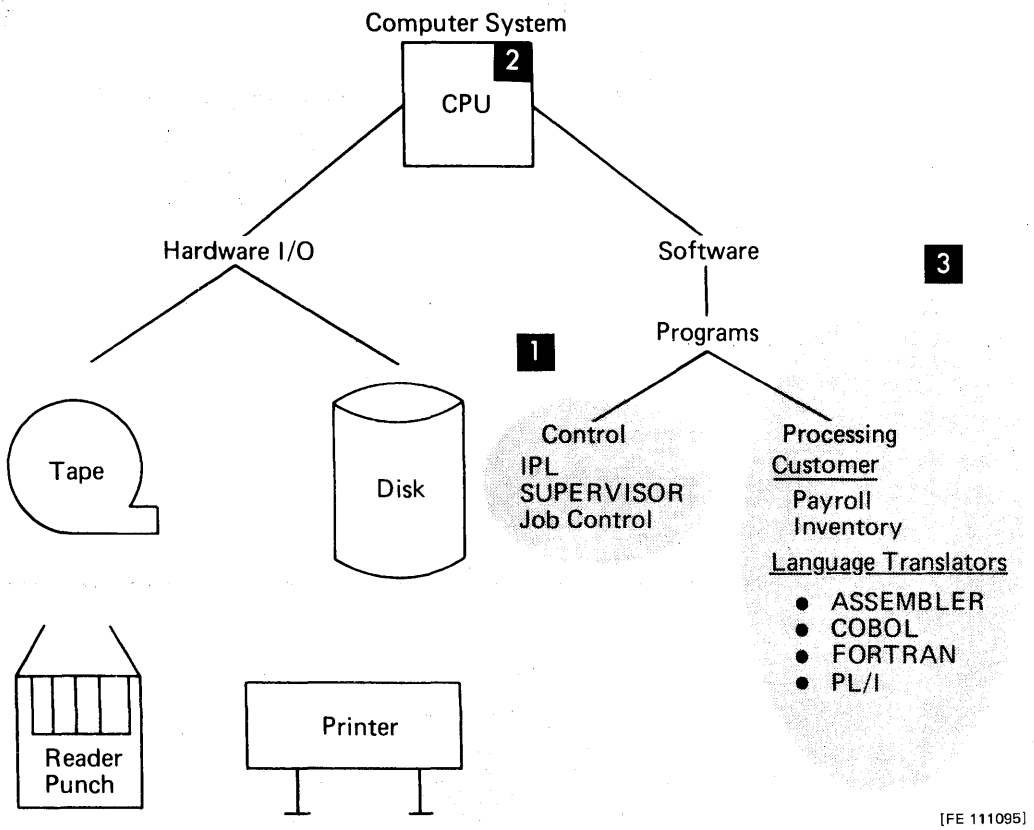


Figure 1.5 Operating System Concepts

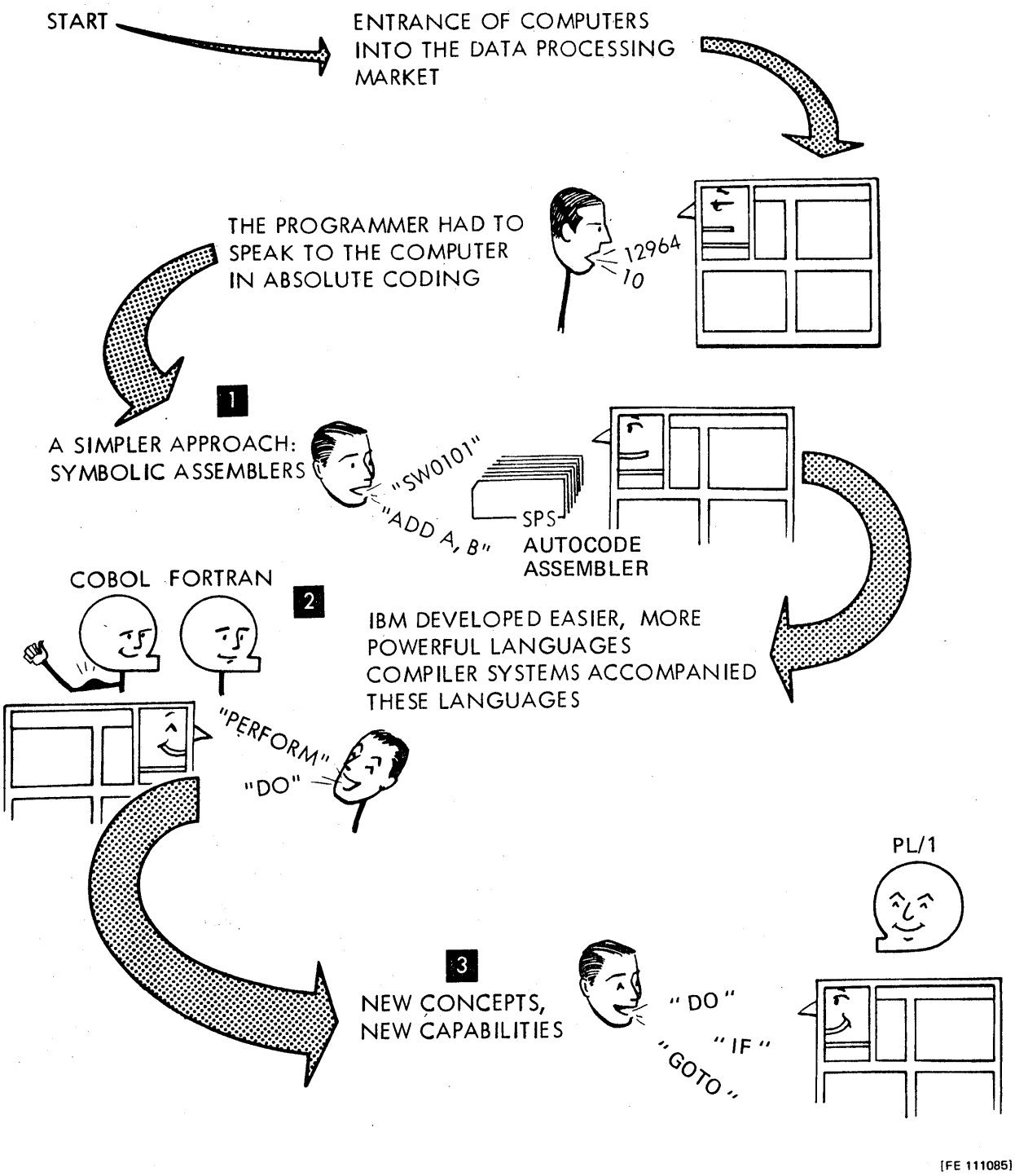


Figure 1.6 - Language Translators

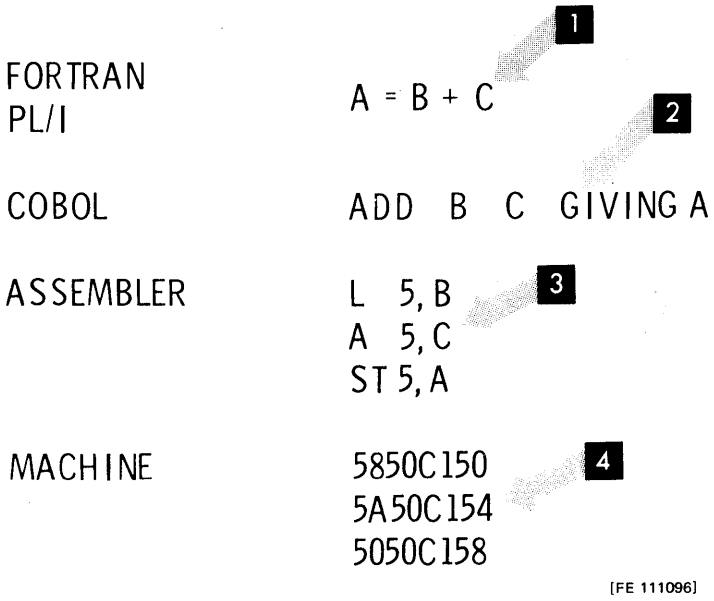


Figure 1.7 Coding Examples

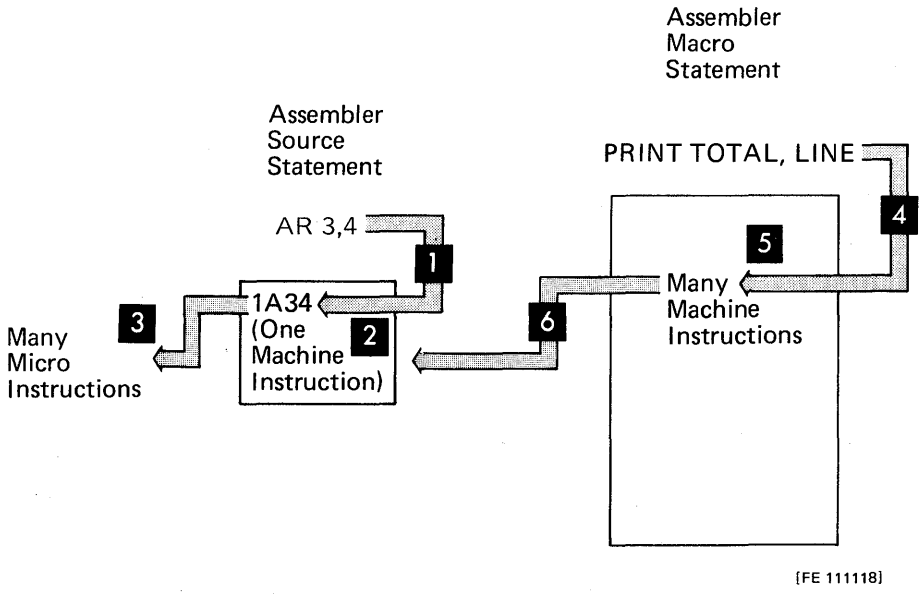


Figure 1.8 Micro/Macro

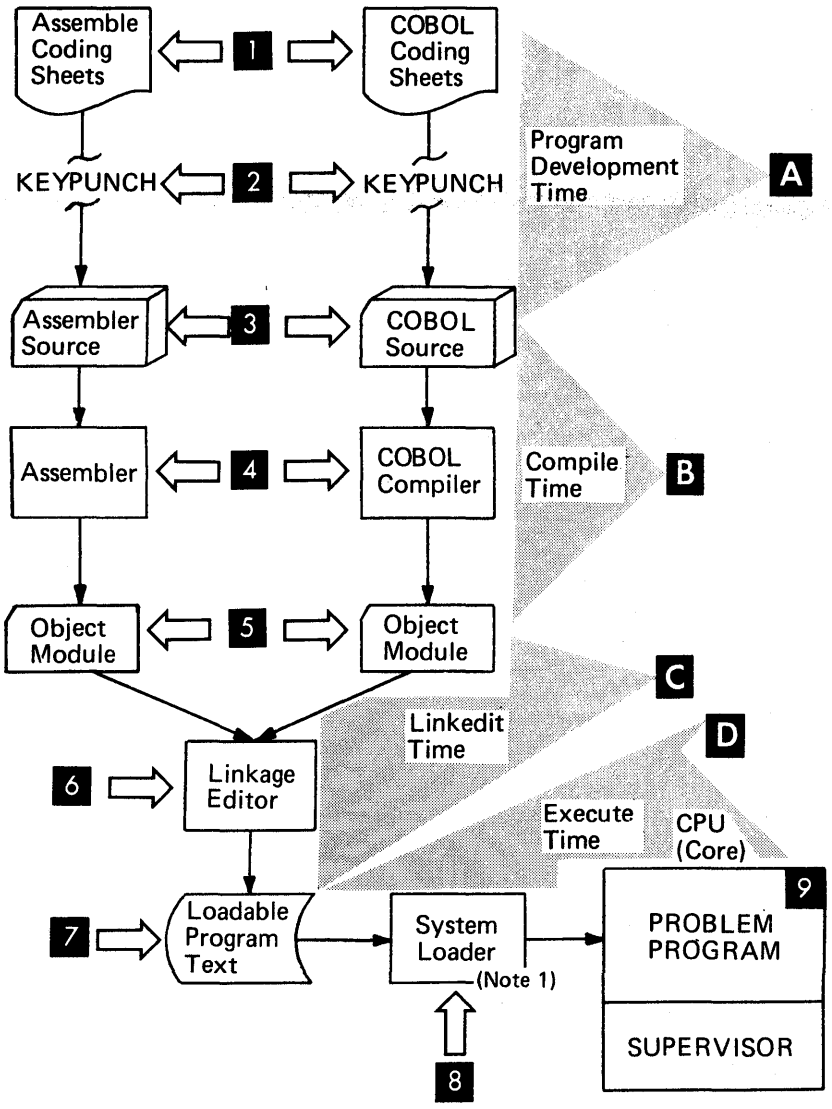


Figure 1.9 - Implementation of a Program

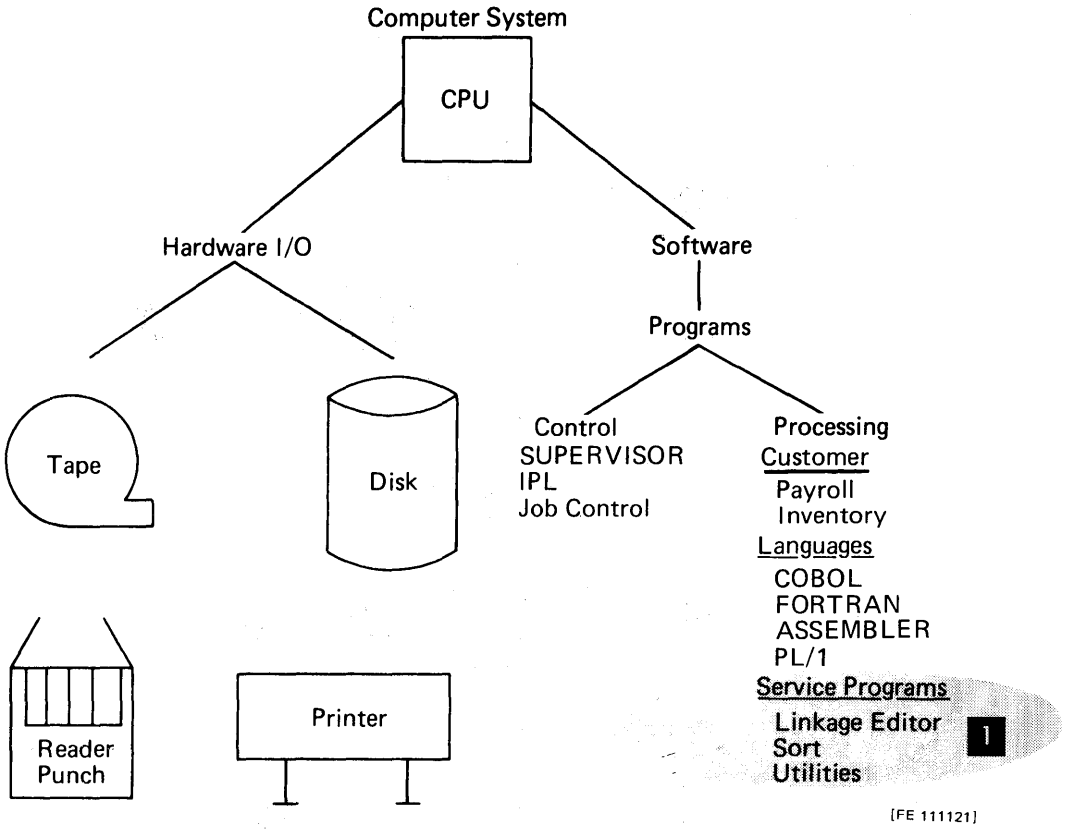


Figure 1.10 Service Programs

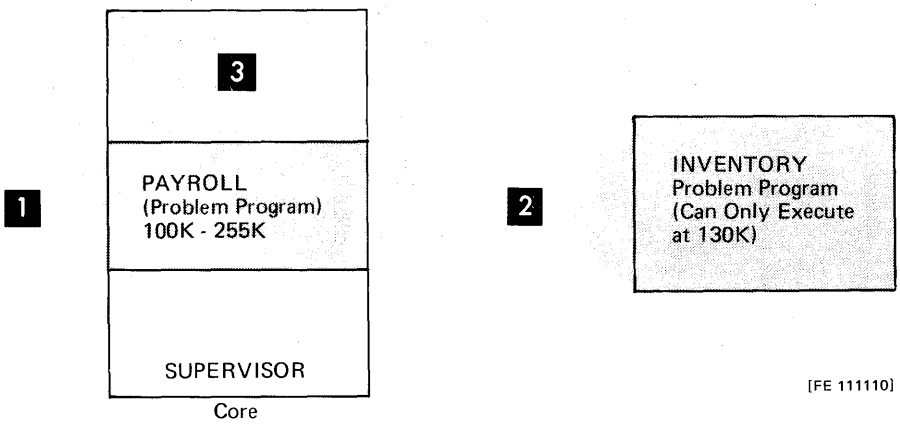


Figure 1.11 Storage Usage 1

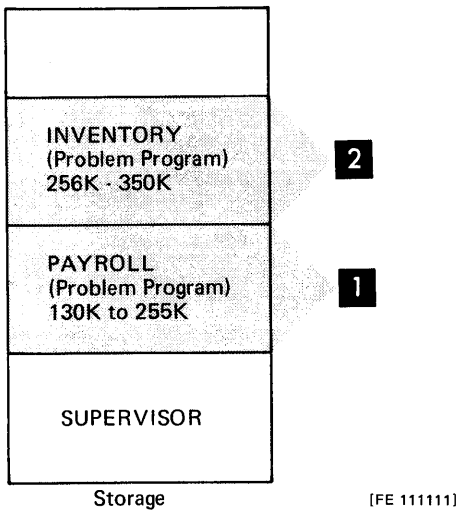


Figure 1.12 Storage Usage 2

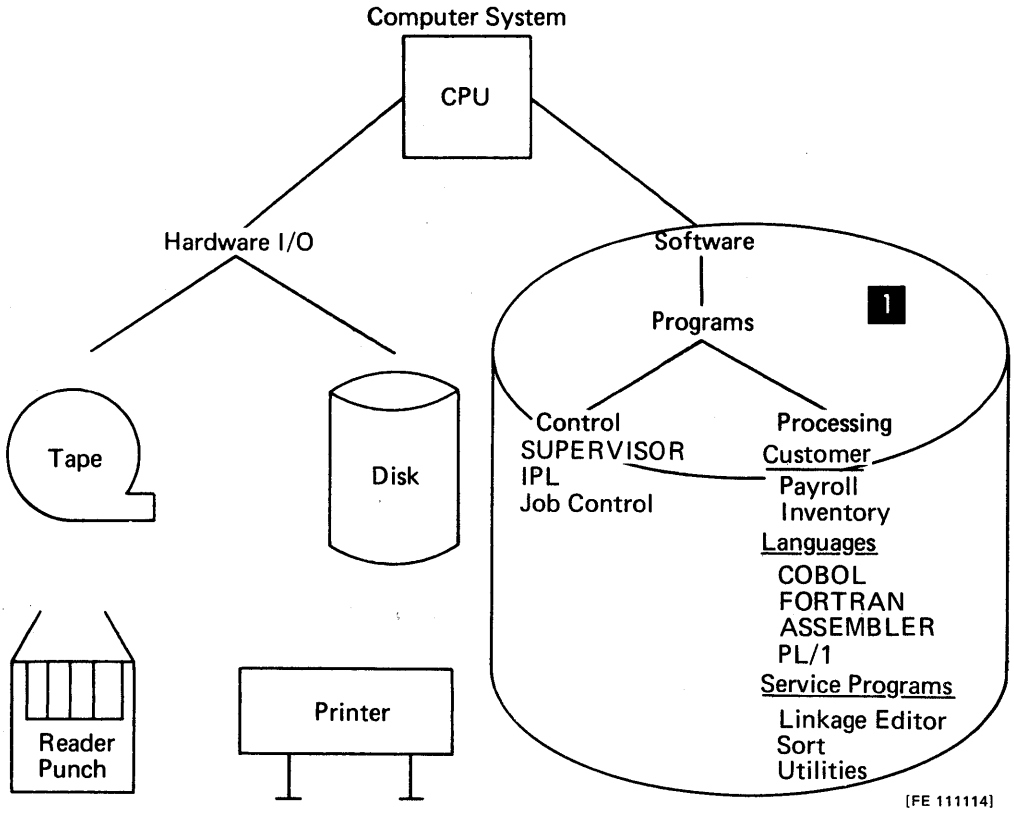


Figure 1.13 System Residence

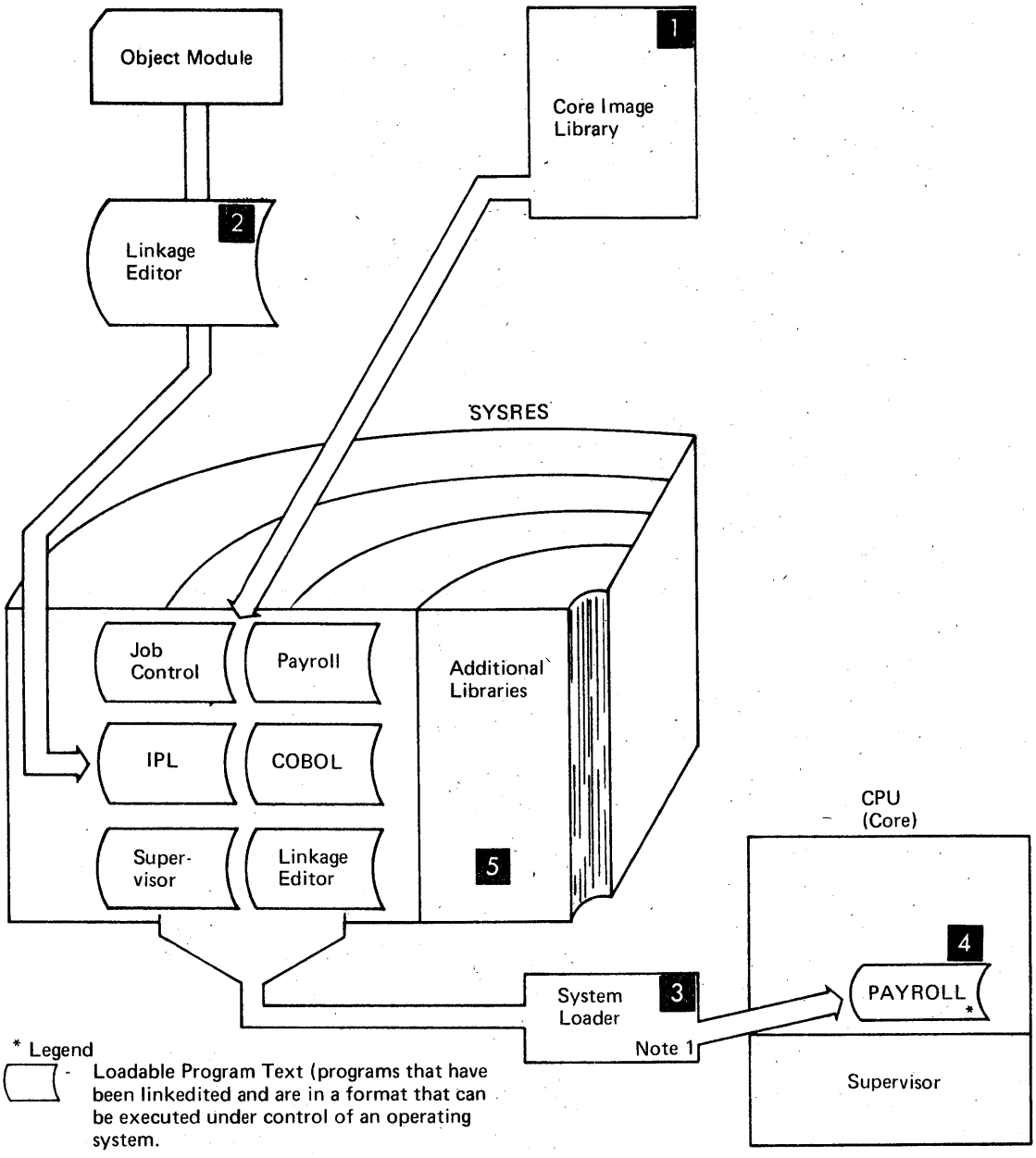


Figure 1.14 - Core Image Library

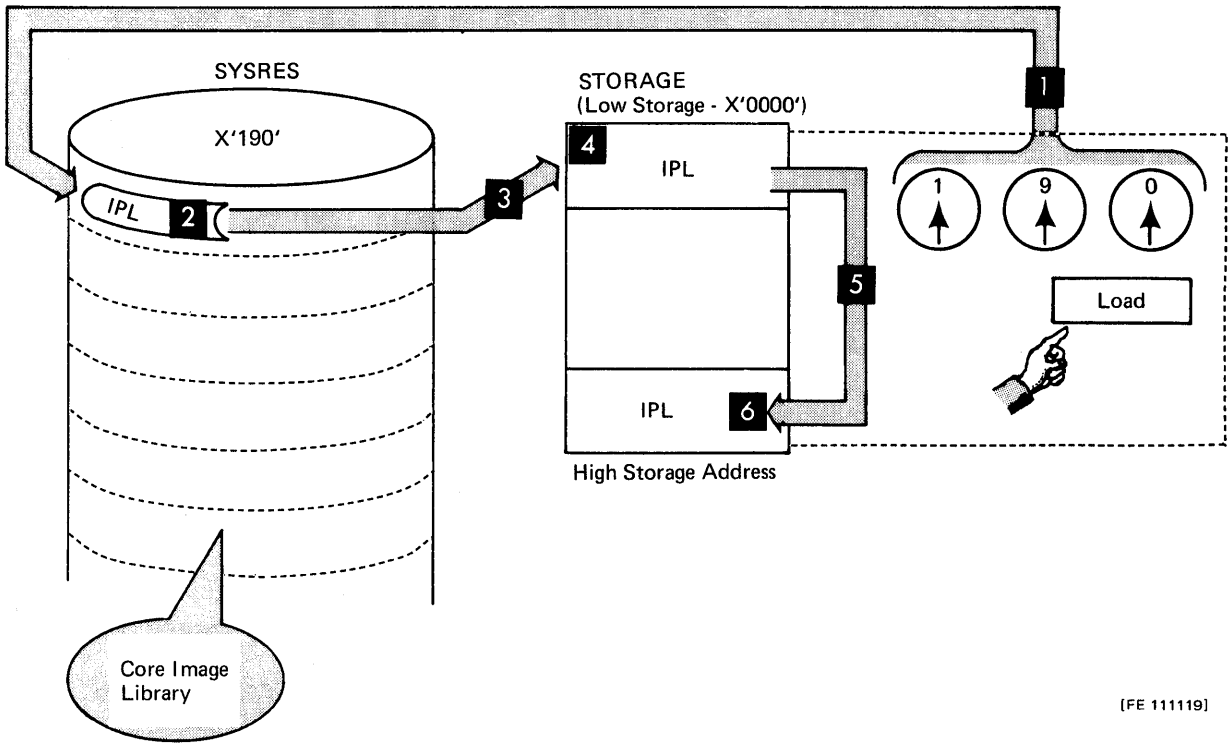


Figure 1.15 IPL Loading Concepts

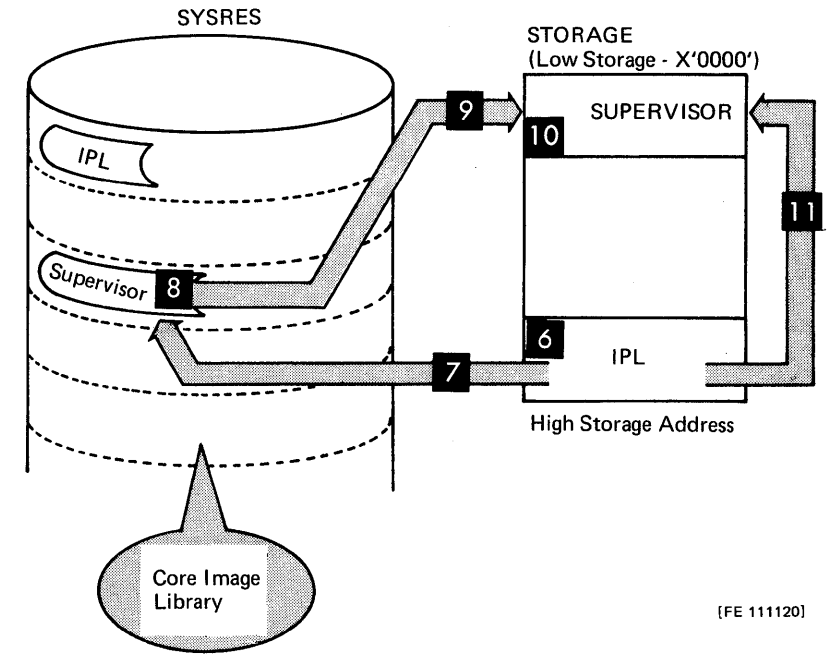


Figure 1.16 Supervisor Loading Concepts

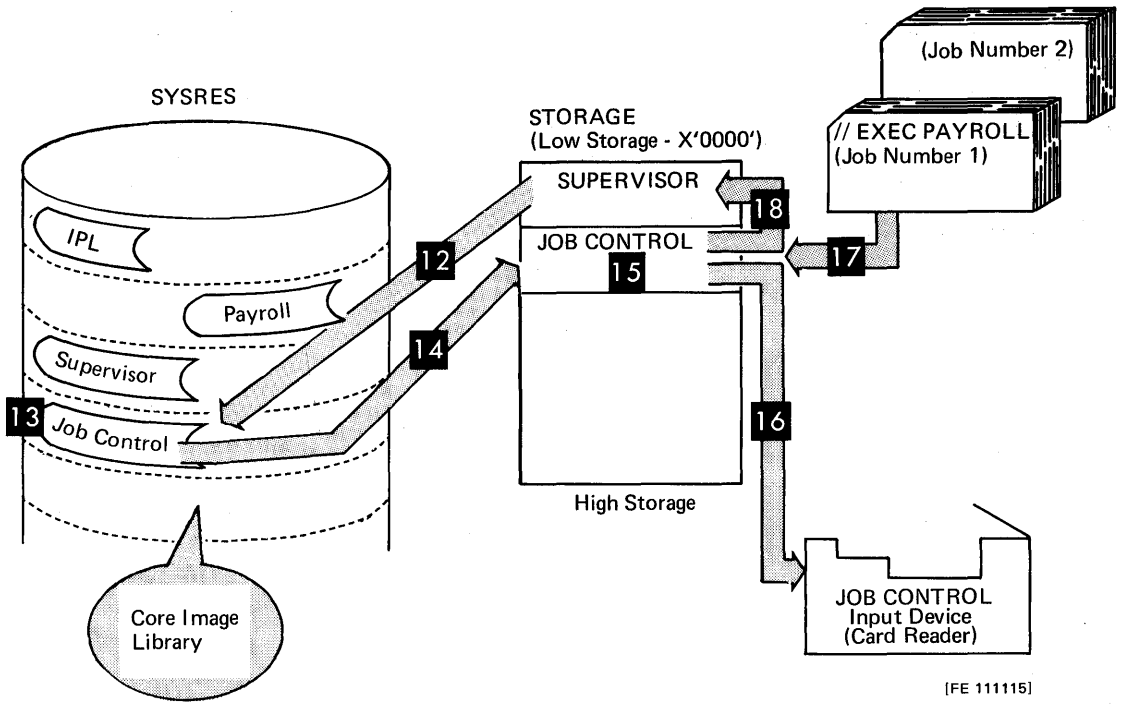


Figure 1.17 - Job Control Loading

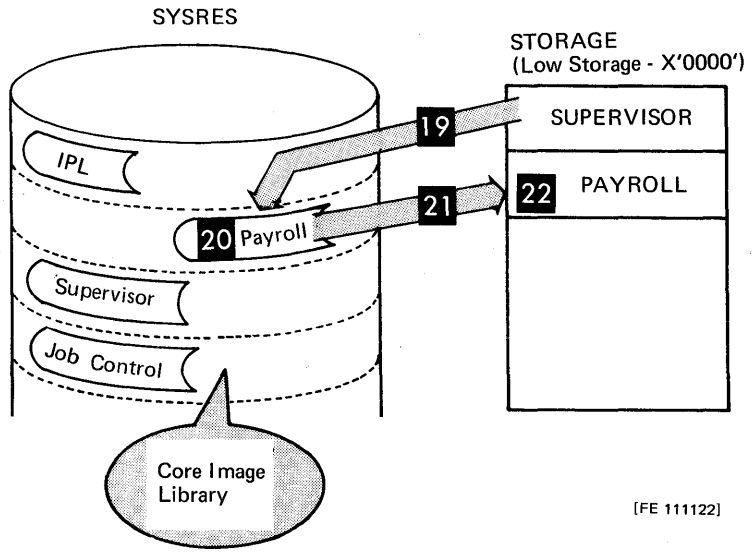


Figure 1.18 Problem Program Loading

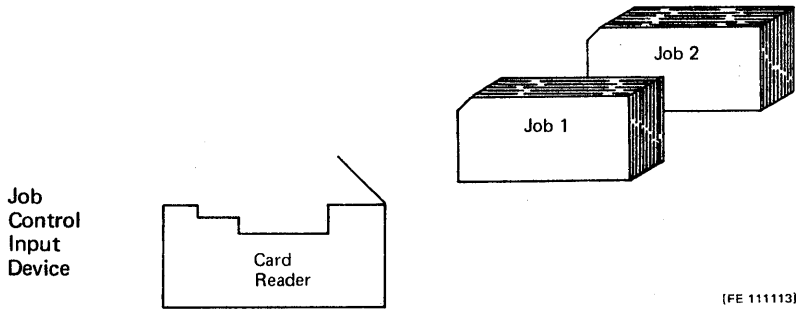


Figure 1.19 Batch Operation

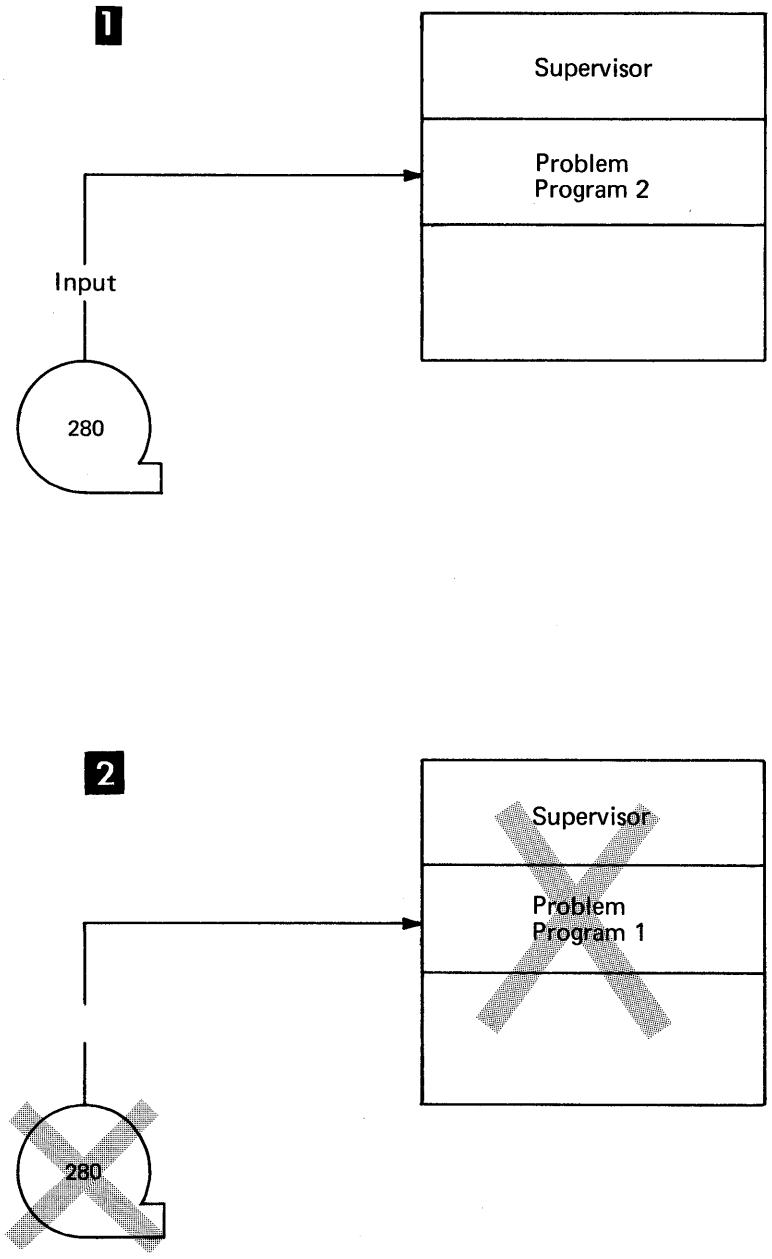


Figure 2.1 Physical I/O Device

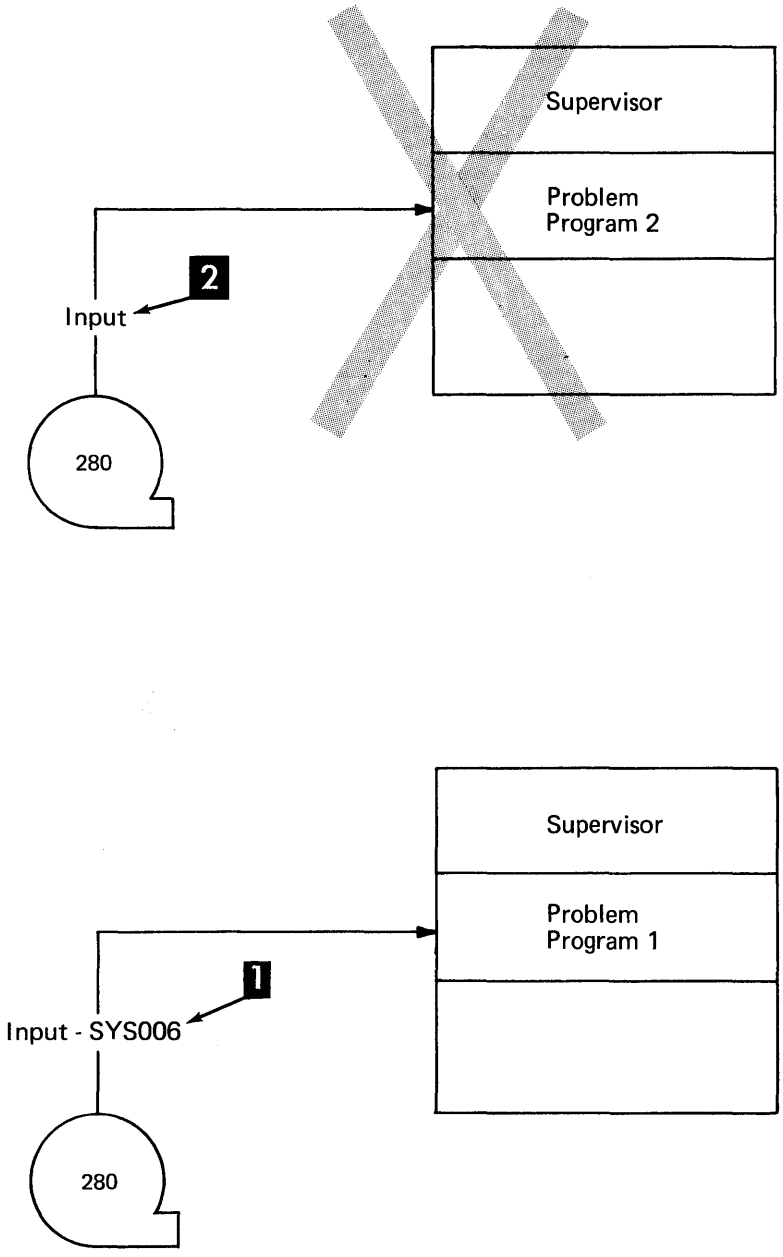


Figure 2.2 Physical Device Vs Symbolic Unit

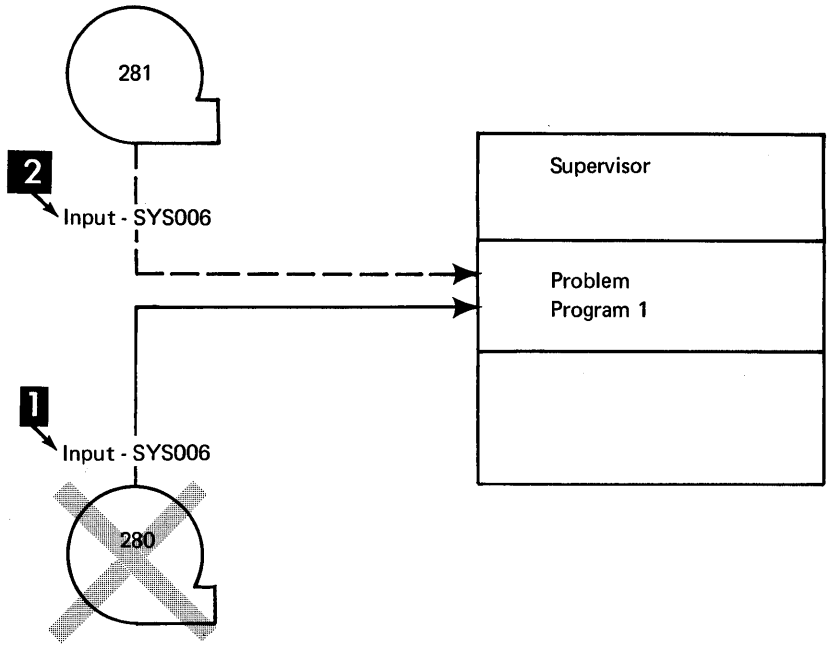


Figure 2.3 Symbolic Assignments

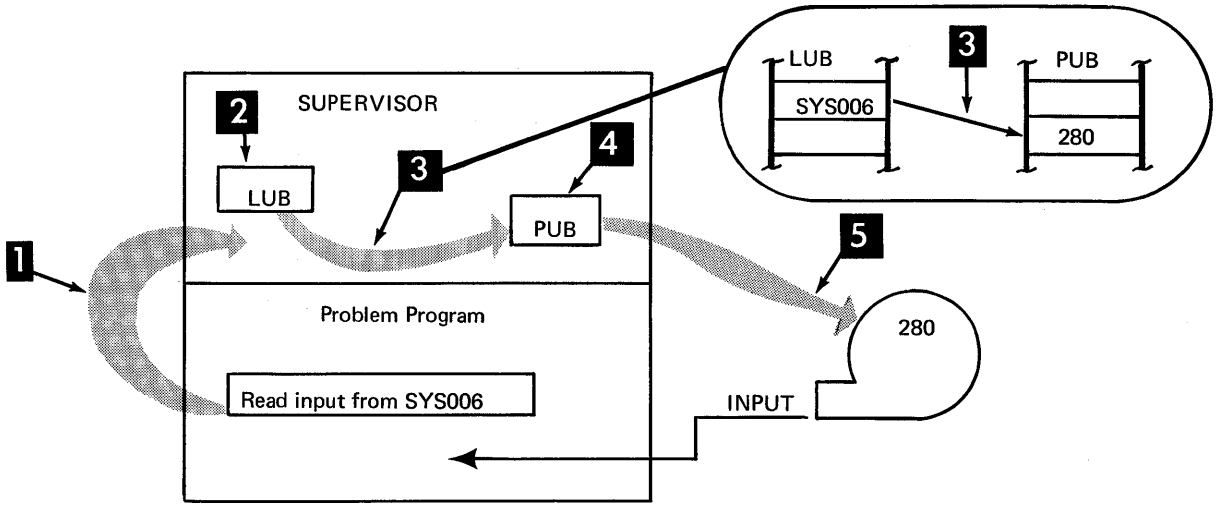


Figure 2.4 LUB/PUB Relationship 1

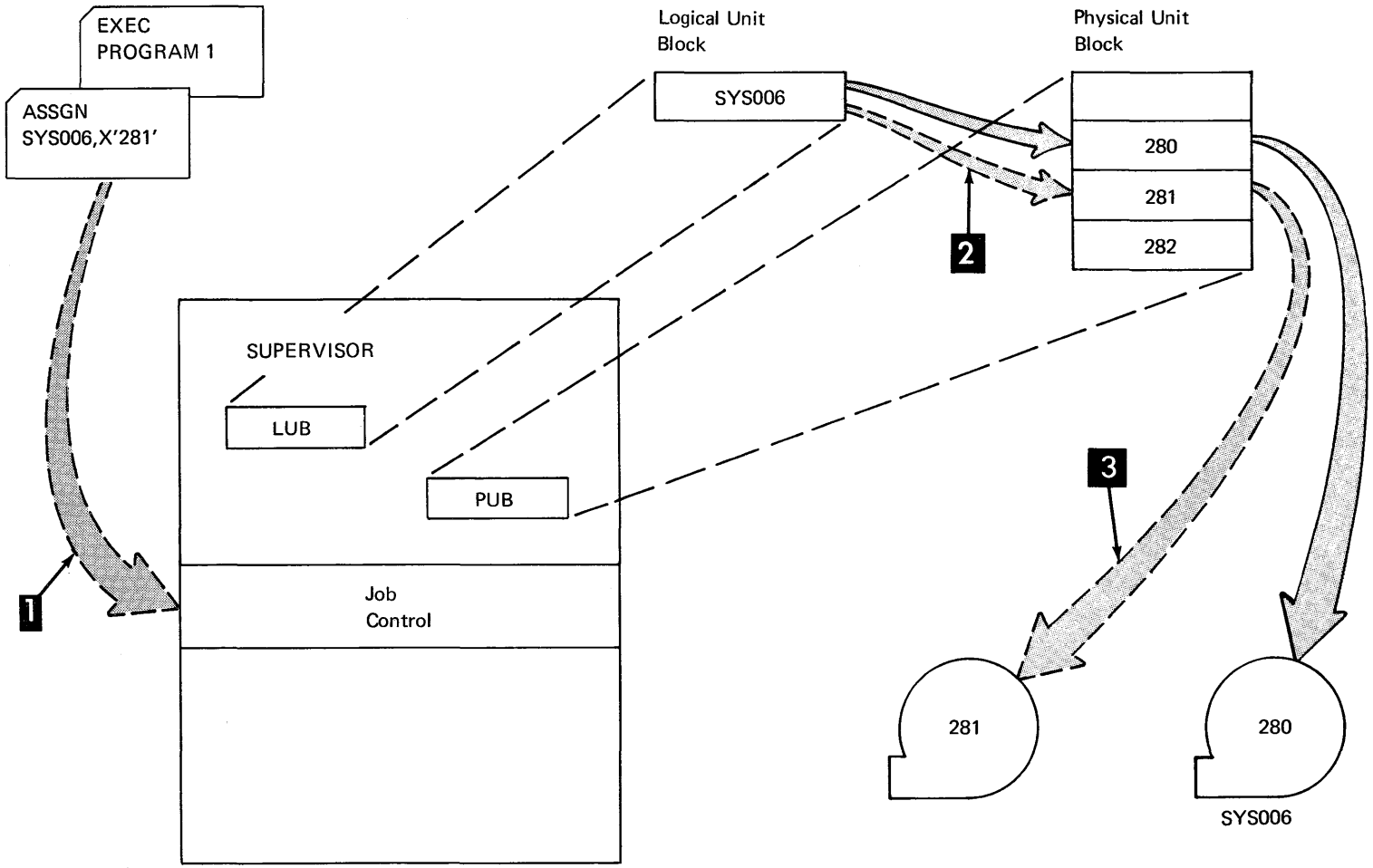


Figure 2.5 Reassignment of SYS006

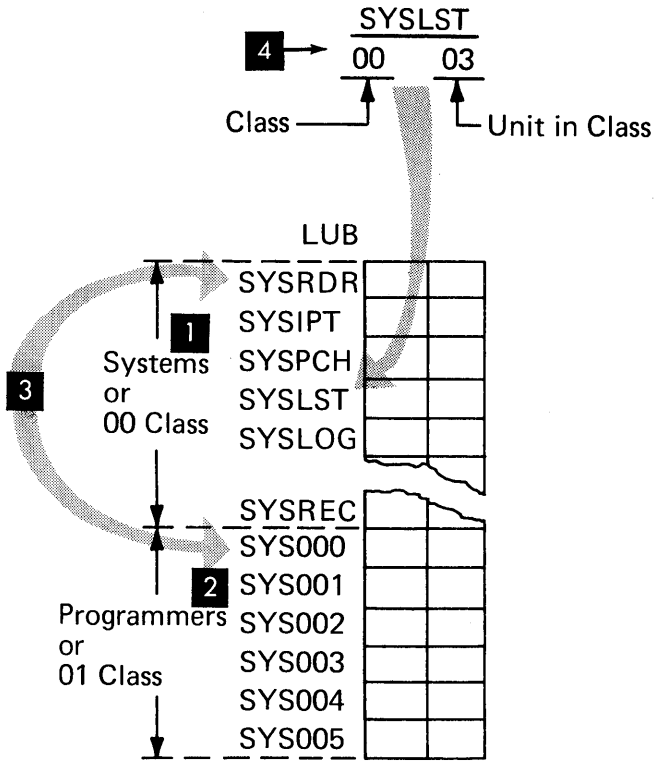


Figure 2.6 LUB Table

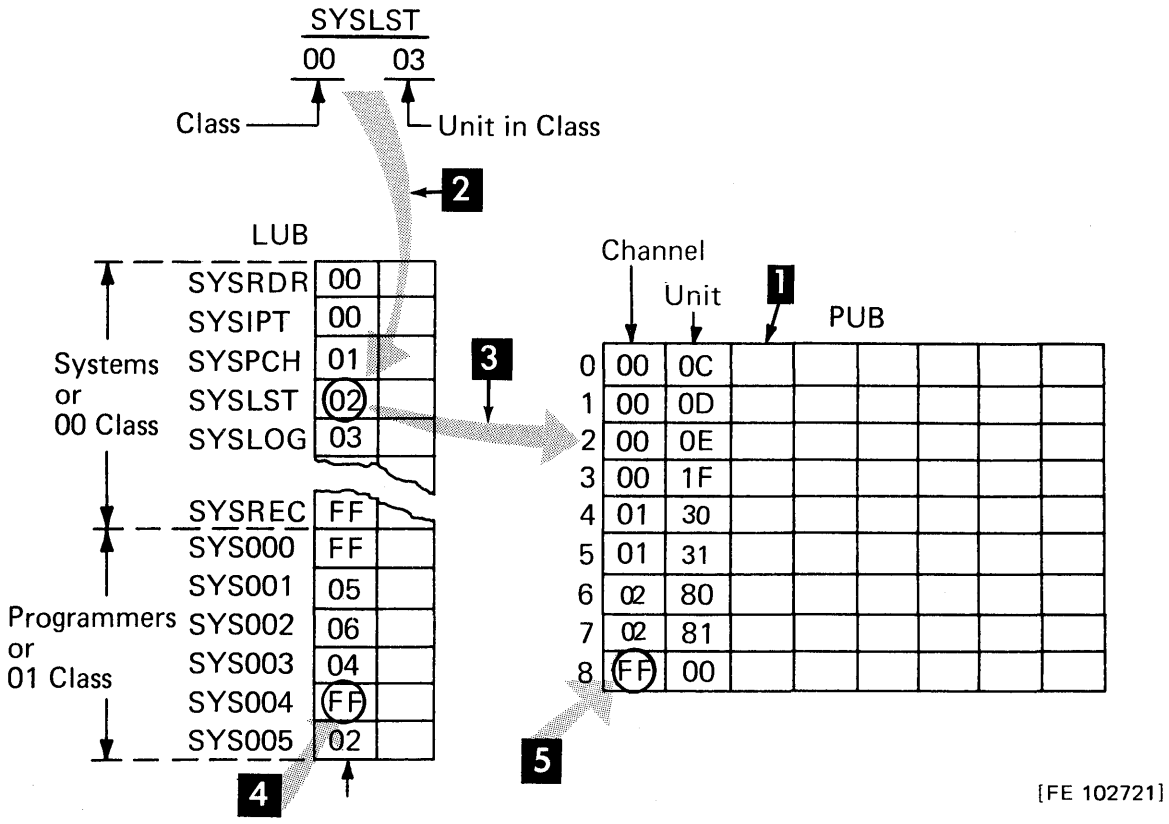


Figure 2.7 LUB/PUB Relationship 2

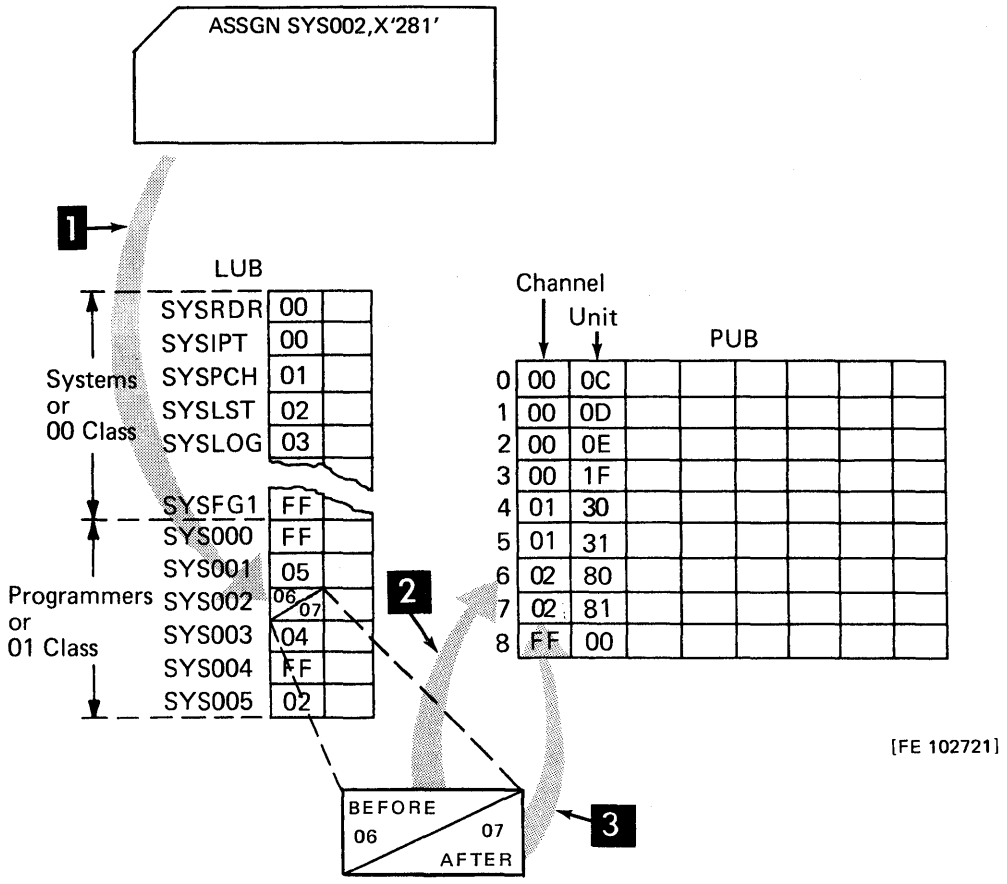


Figure 2.8 Reassignment

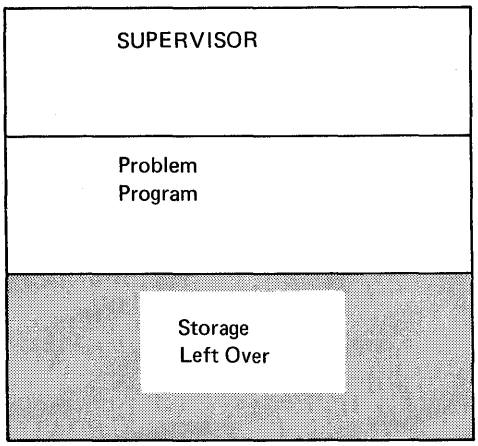


Figure 2.9 Core Layout

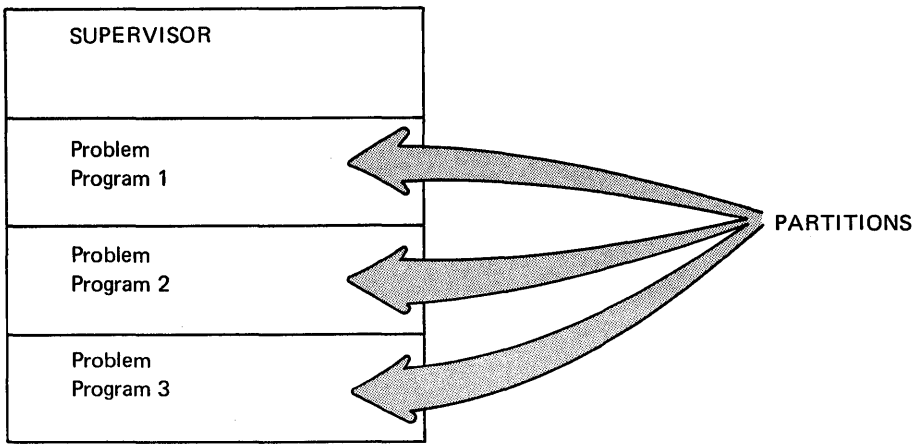


Figure 2.10 Multiprogramming

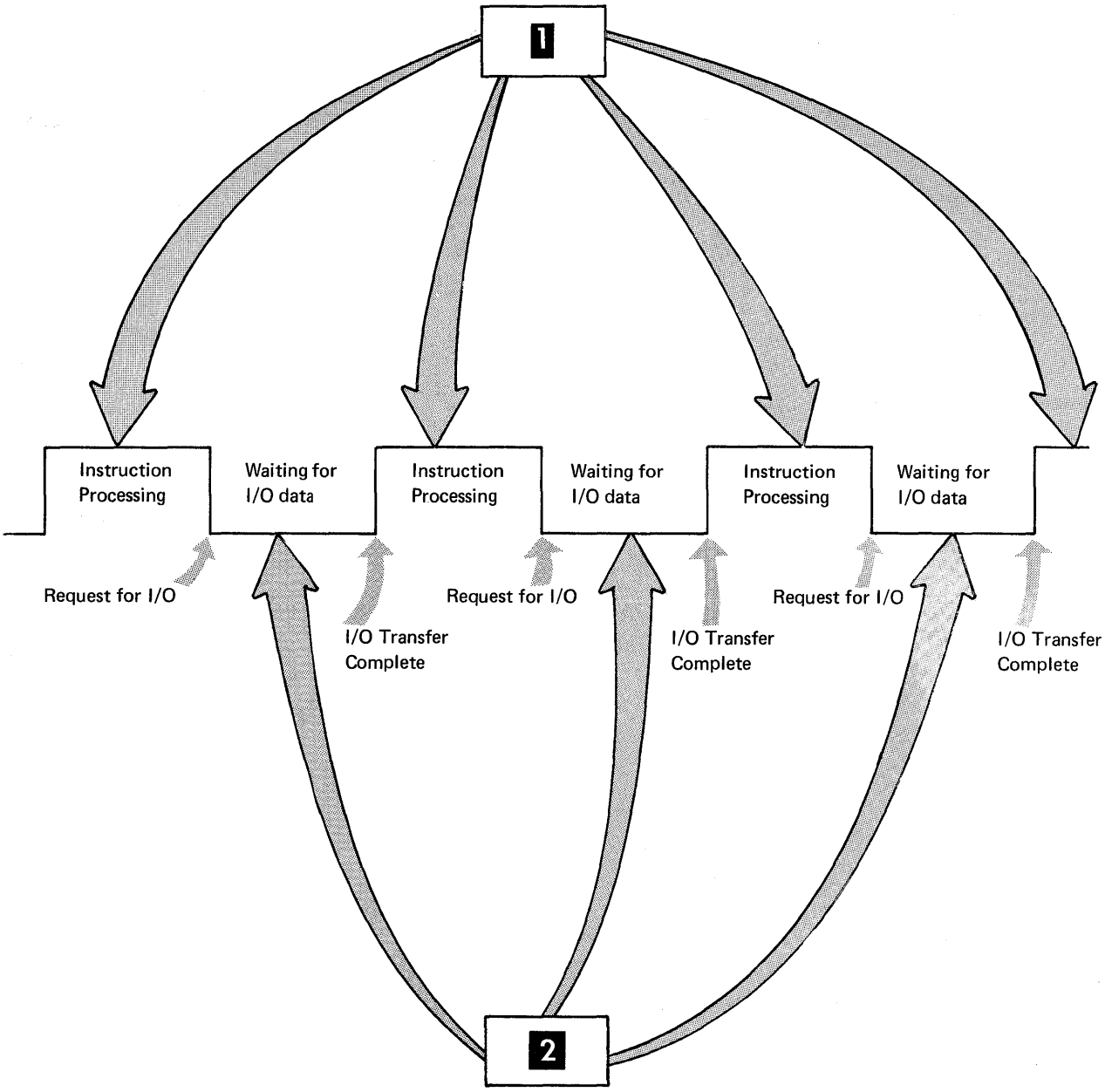


Figure 2.11 Processing Time Vs Waiting for I/O

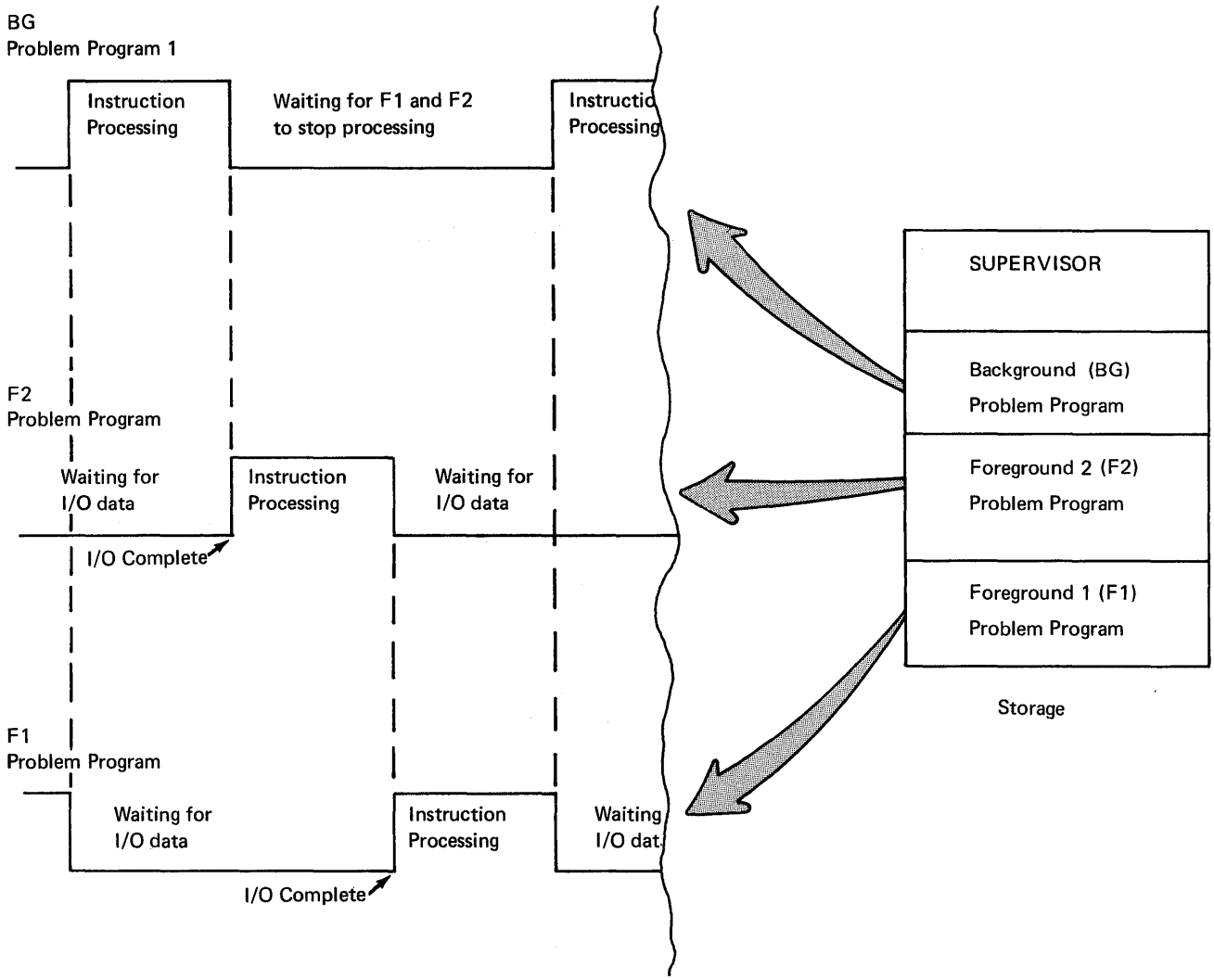


Figure 2.12 DOS Three Partition Processing

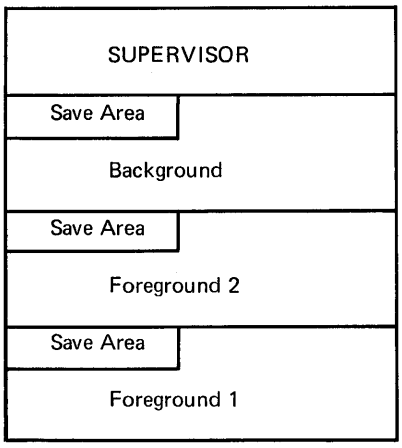


Figure 2.13 Partition Save Area

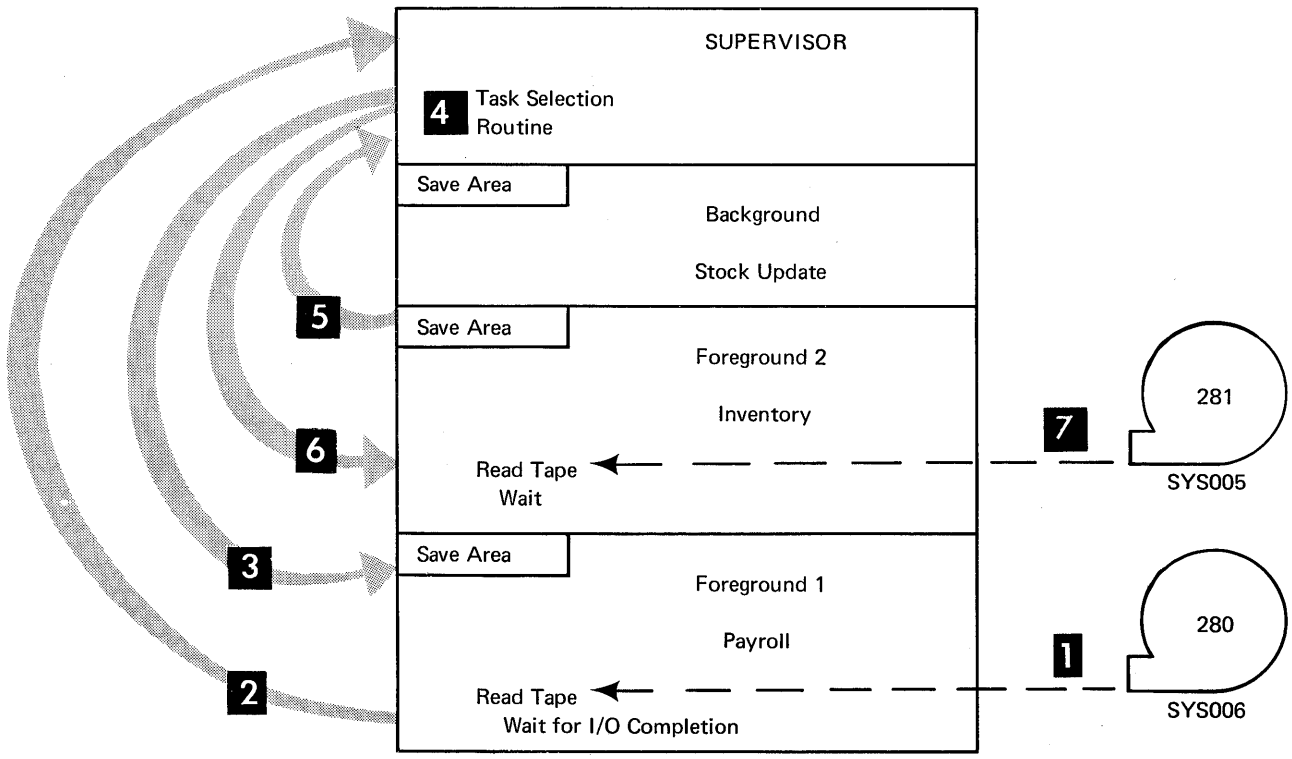


Figure 2.14 Save Area Use

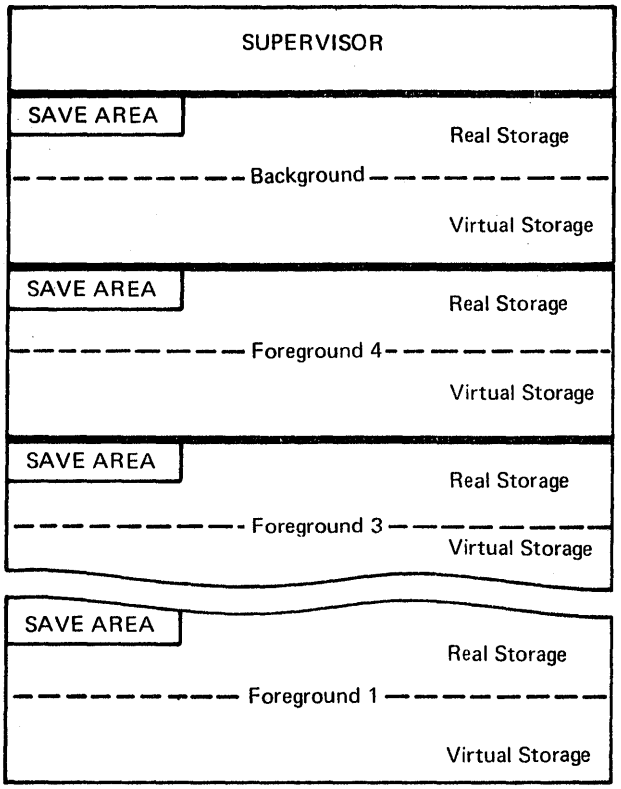


Figure 2.15 Partition Save Area - Using Virtual Storage

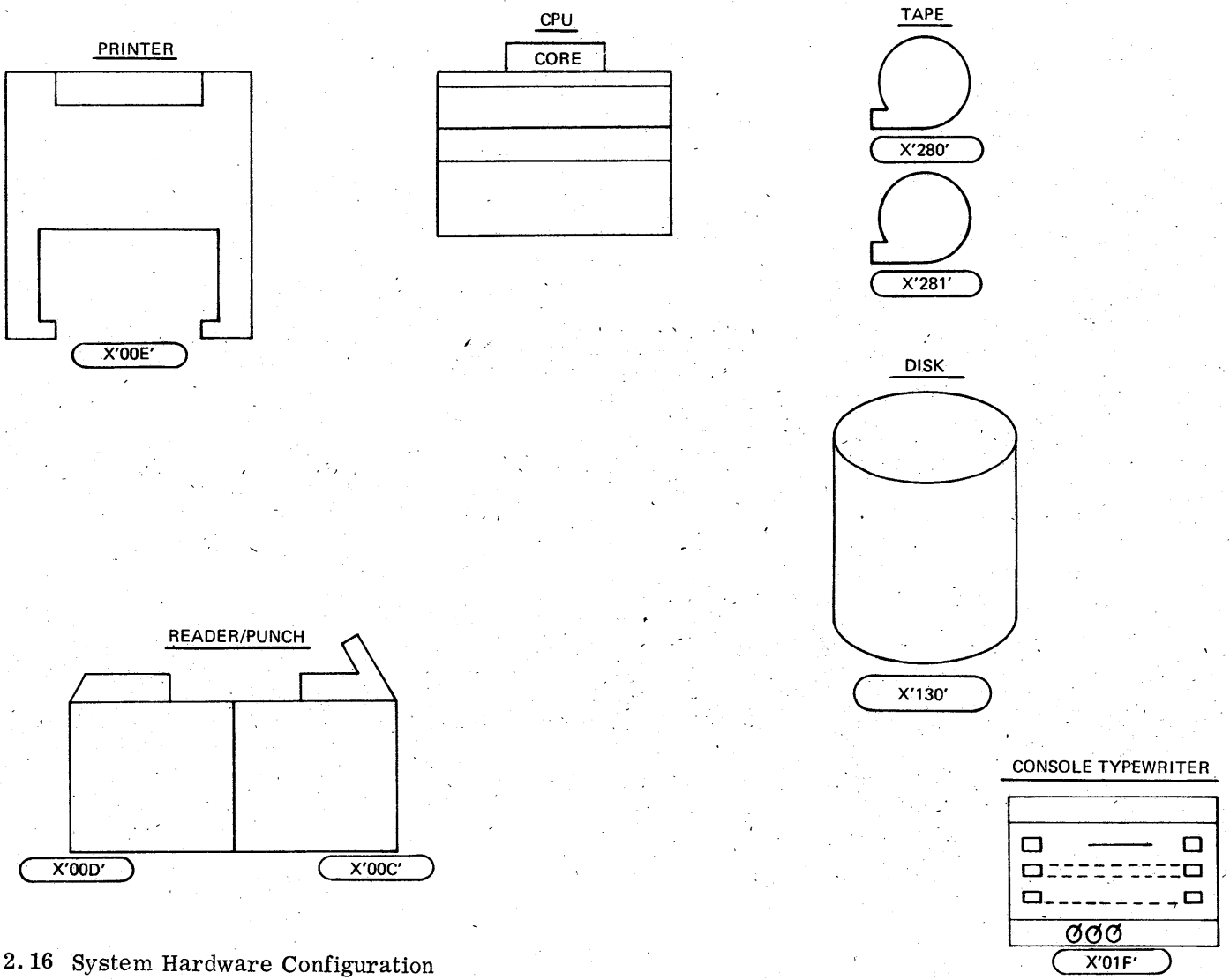


Figure 2.16 System Hardware Configuration

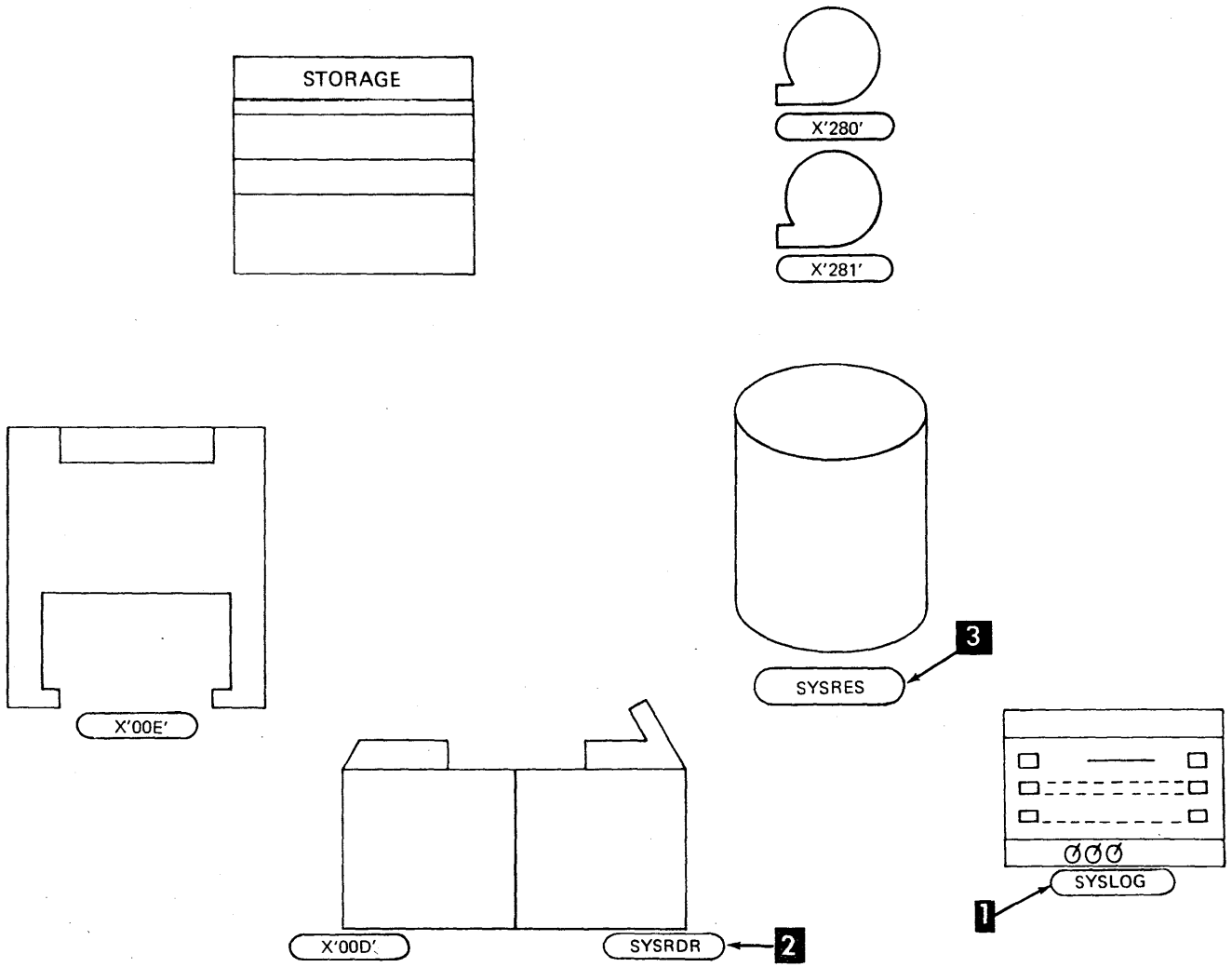


Figure 2.17 IPL Symbolic Units

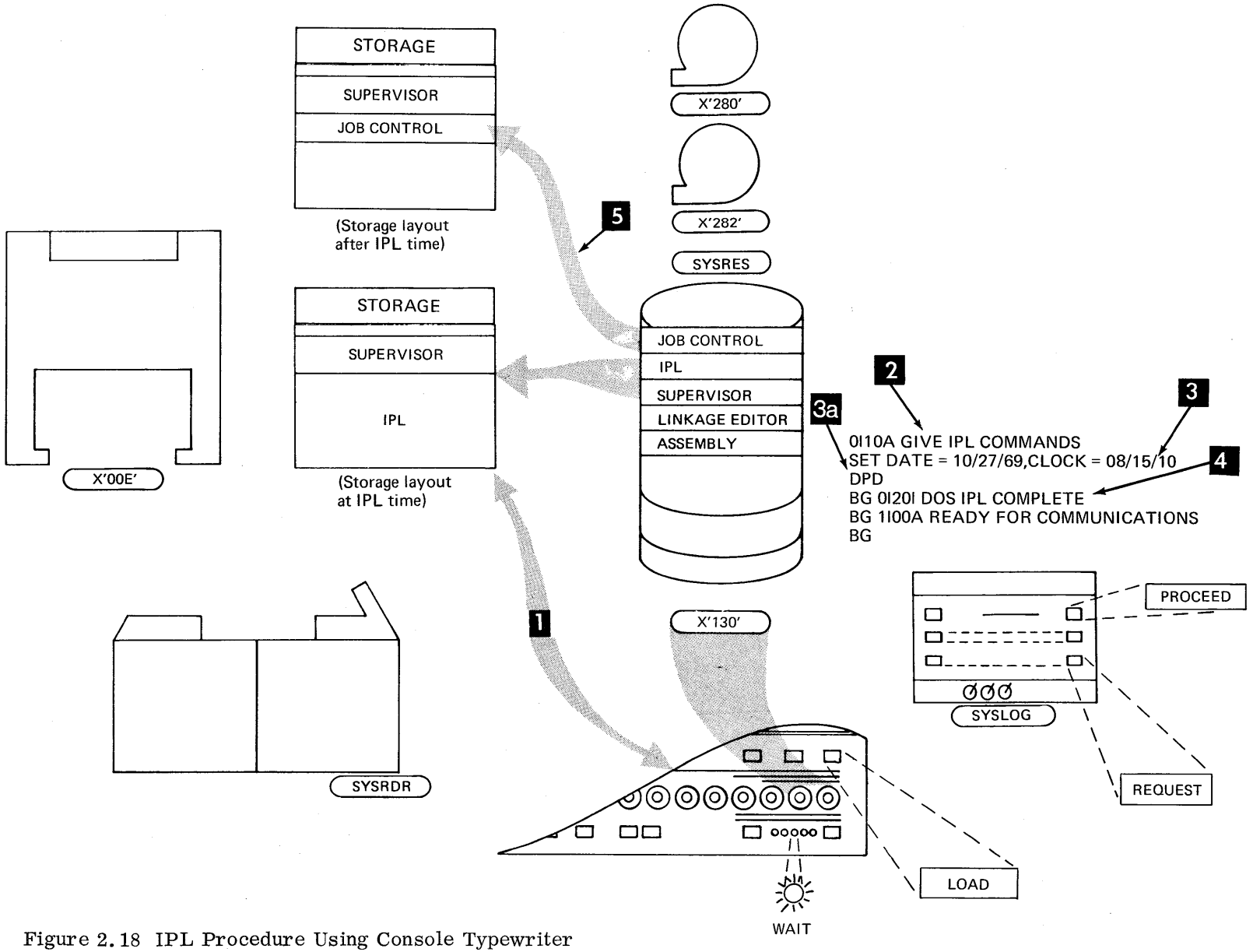


Figure 2.18 IPL Procedure Using Console Typewriter

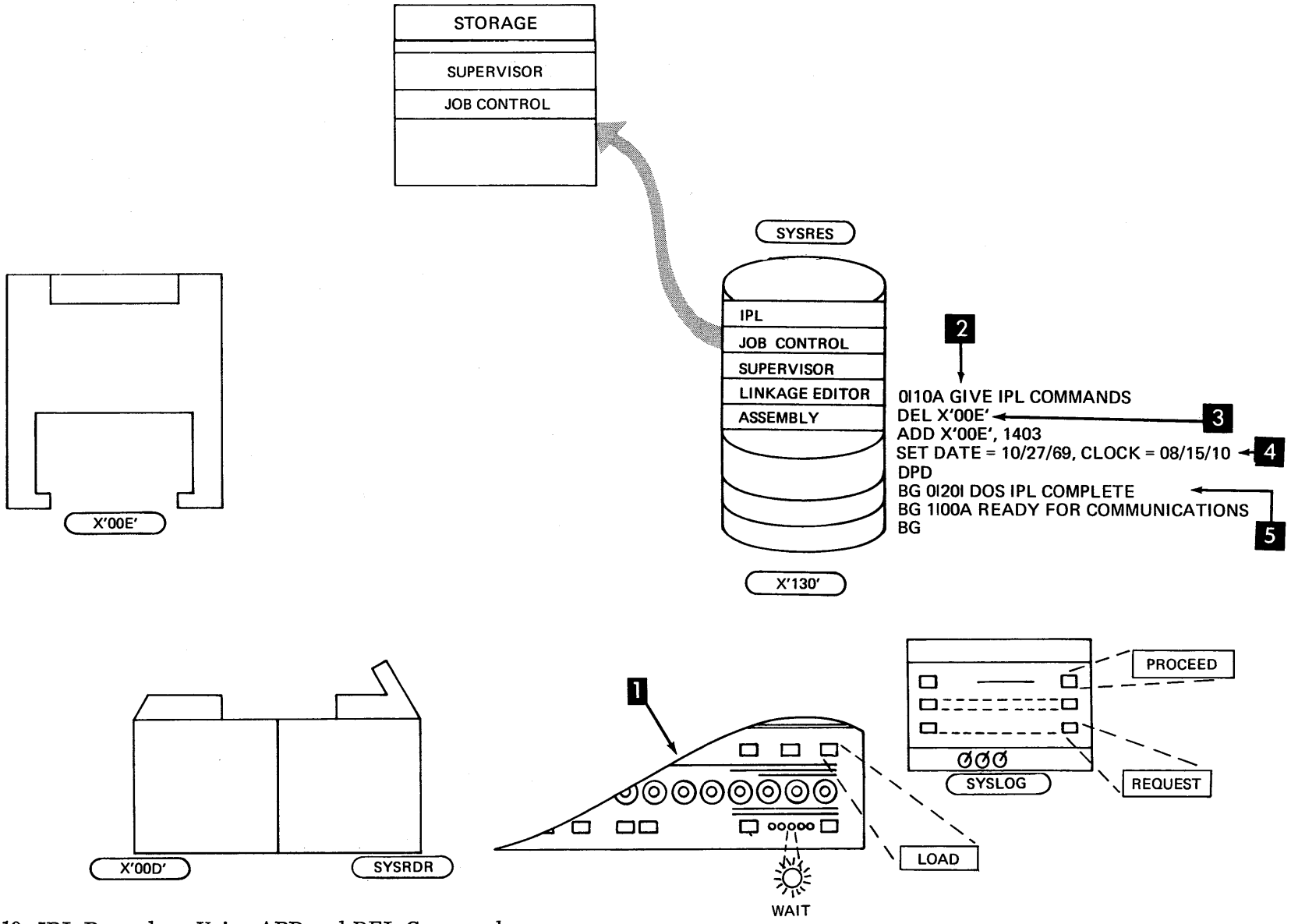


Figure 2.19 IPL Procedure Using ADD and DEL Commands

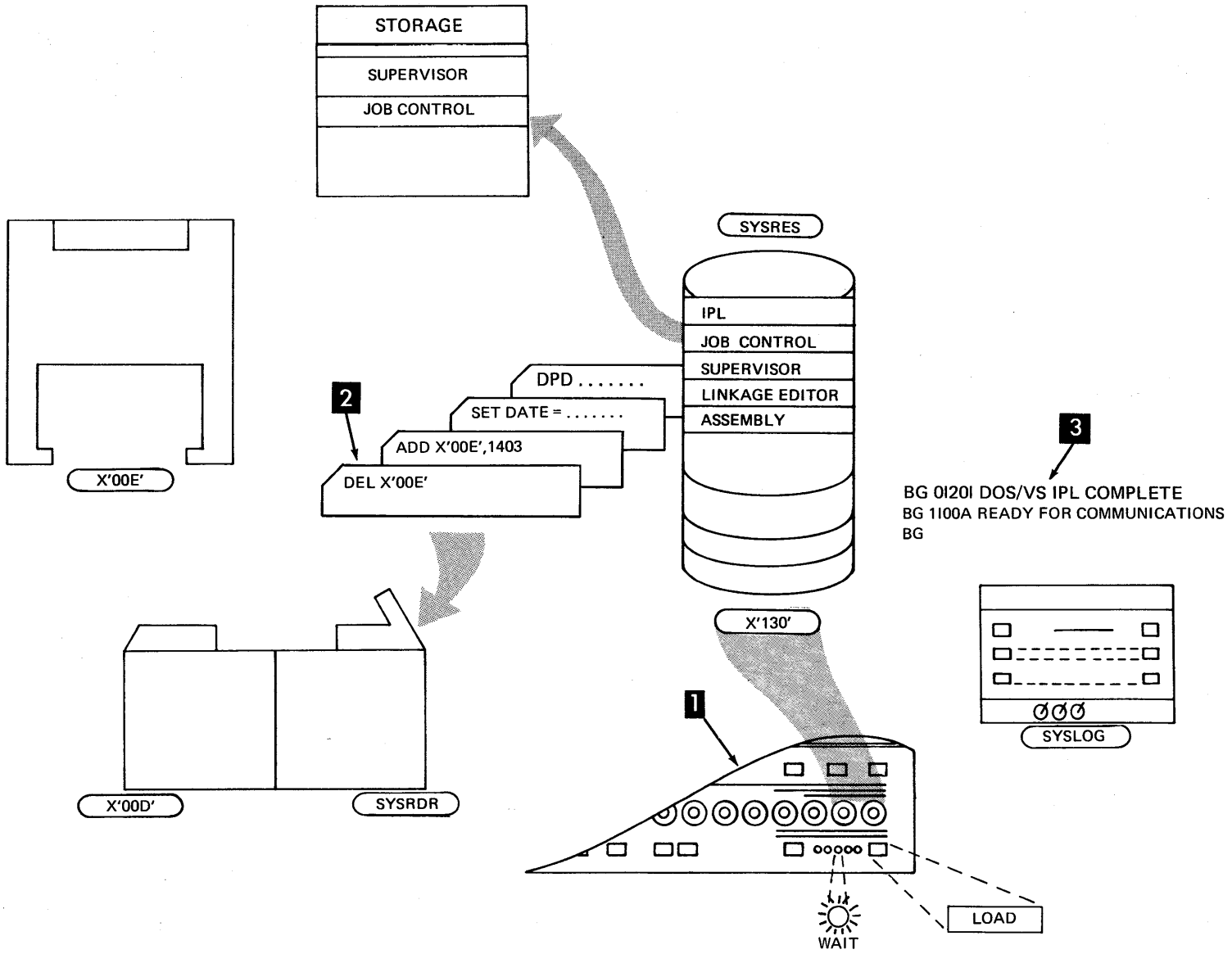


Figure 2.20 IPL Procedure Using Card Reader

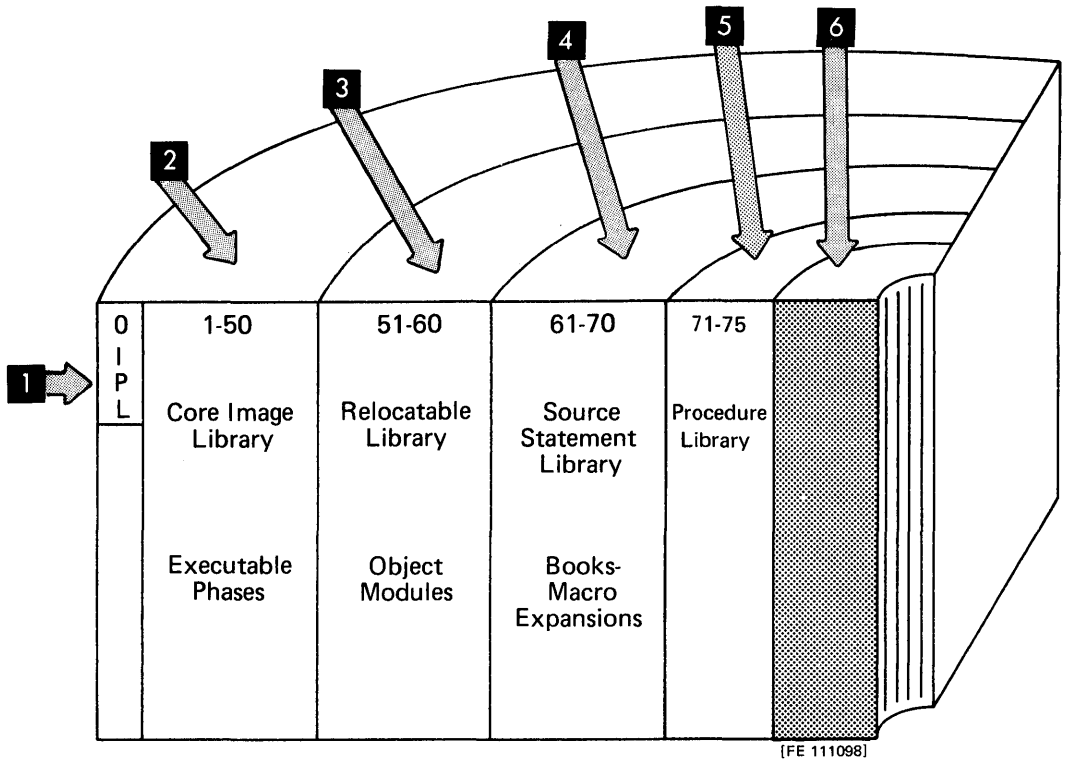


Figure 3.1 Sample DOS SYSRES

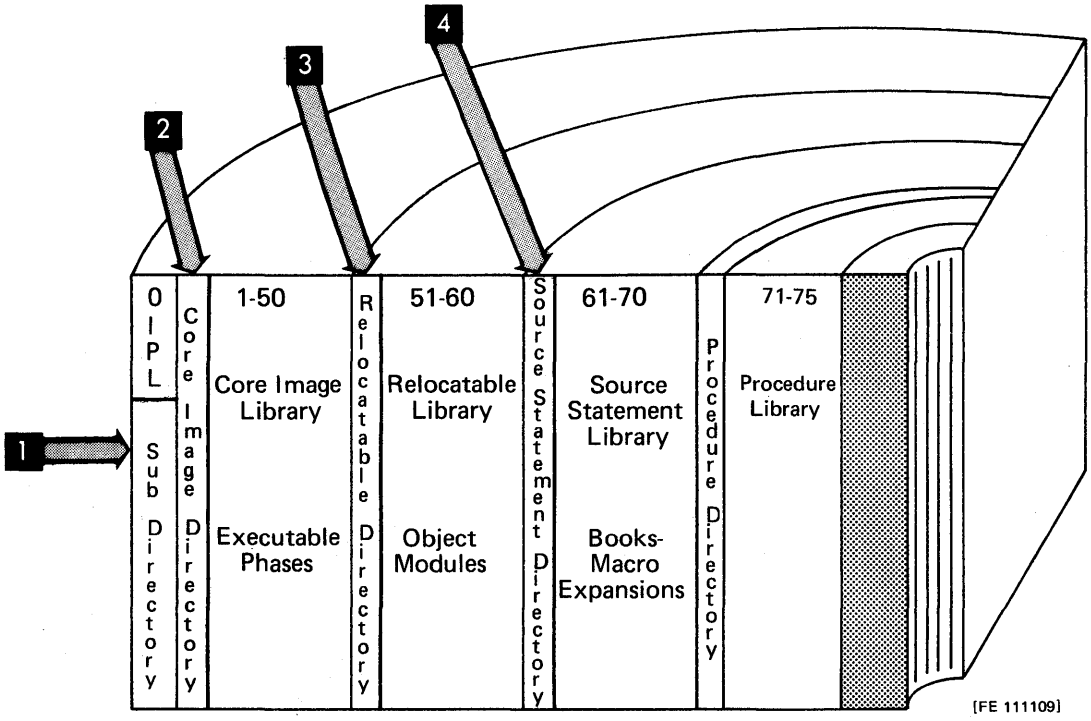


Figure 3.2 Sample DOS SYSRES With Directories

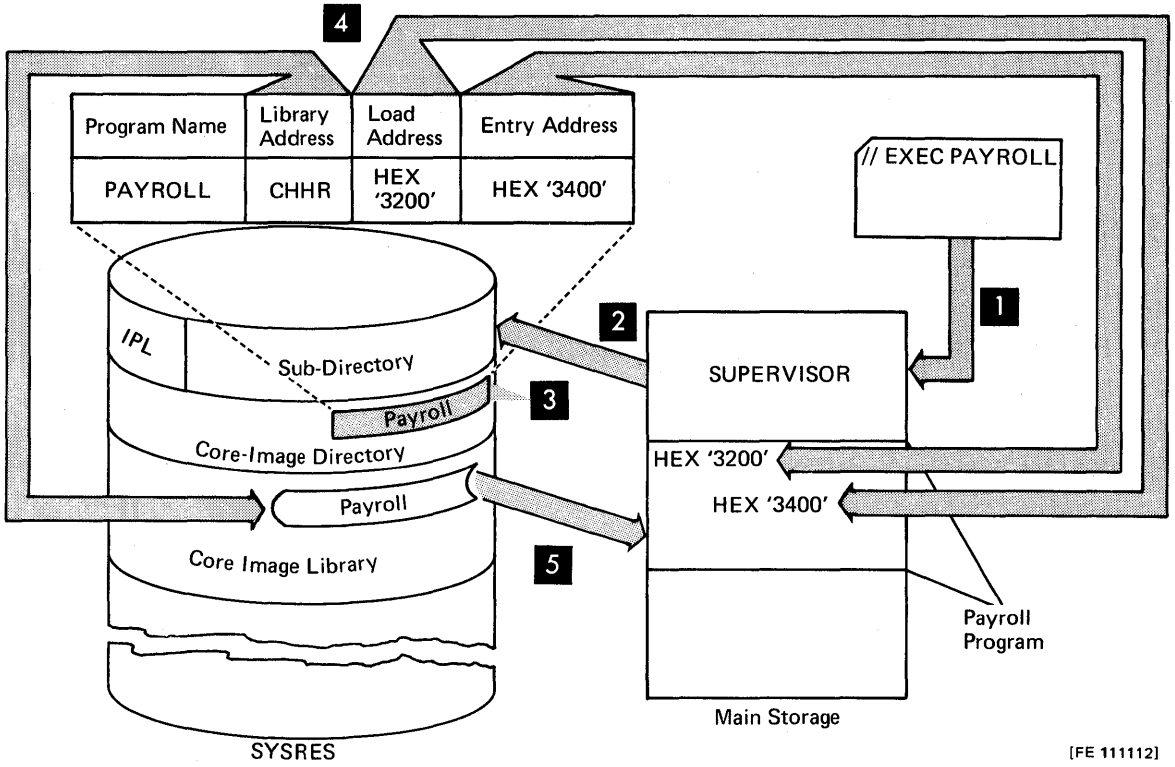


Figure 3.3 Directory Content

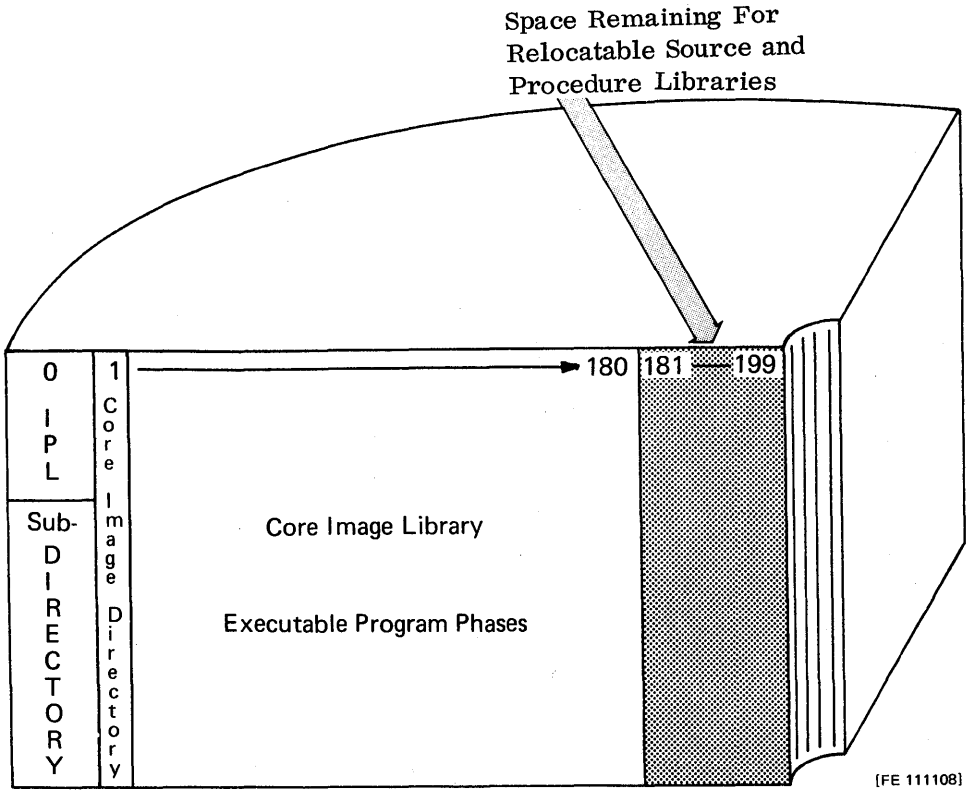


Figure 3.4 Large Libraries

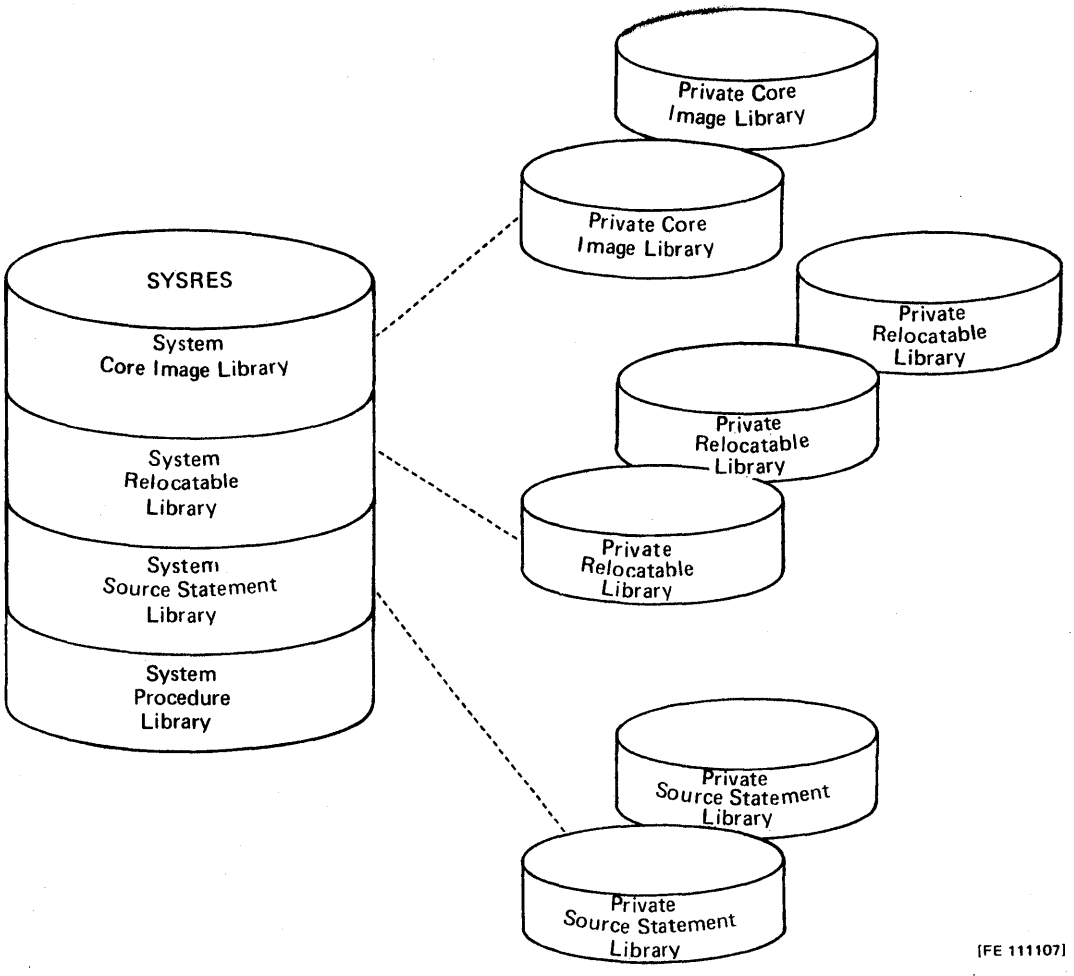


Figure 3.5 System Libraries Versus Private Libraries

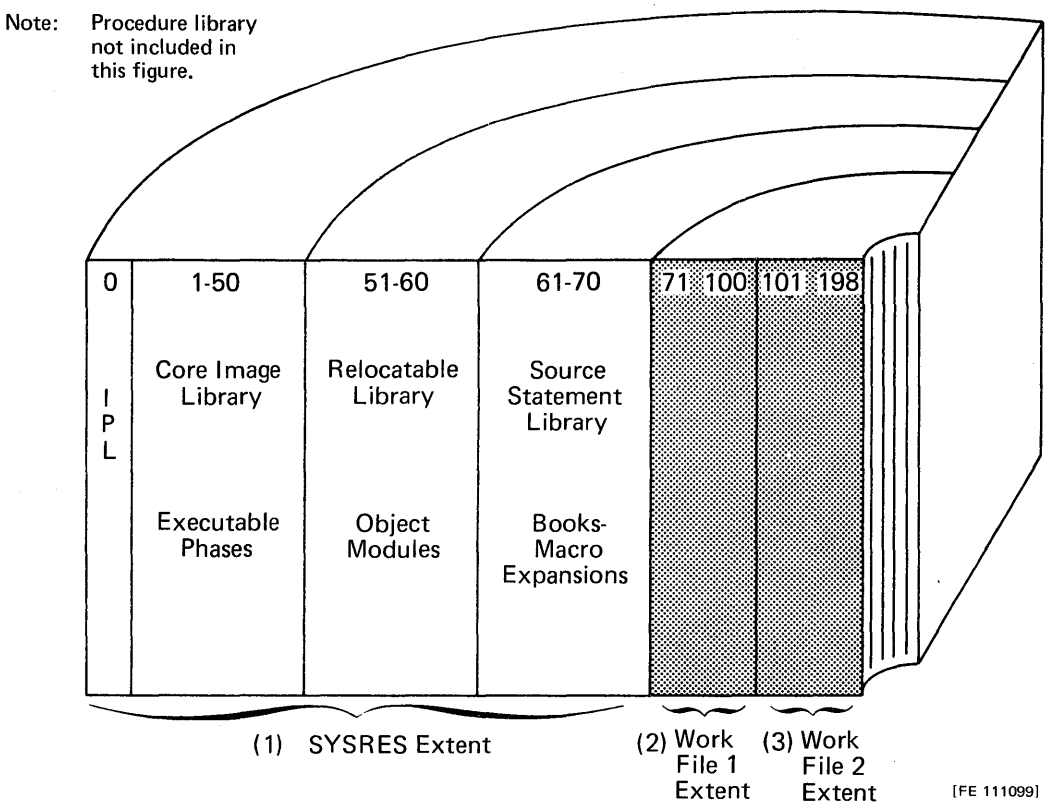


Figure 3.6 Disk Extents

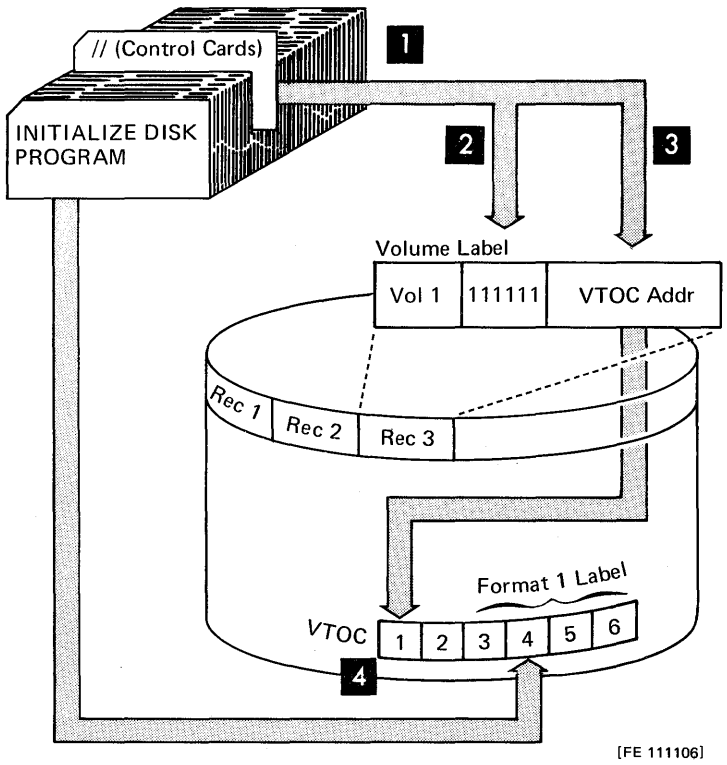


Figure 3.7 VTOC

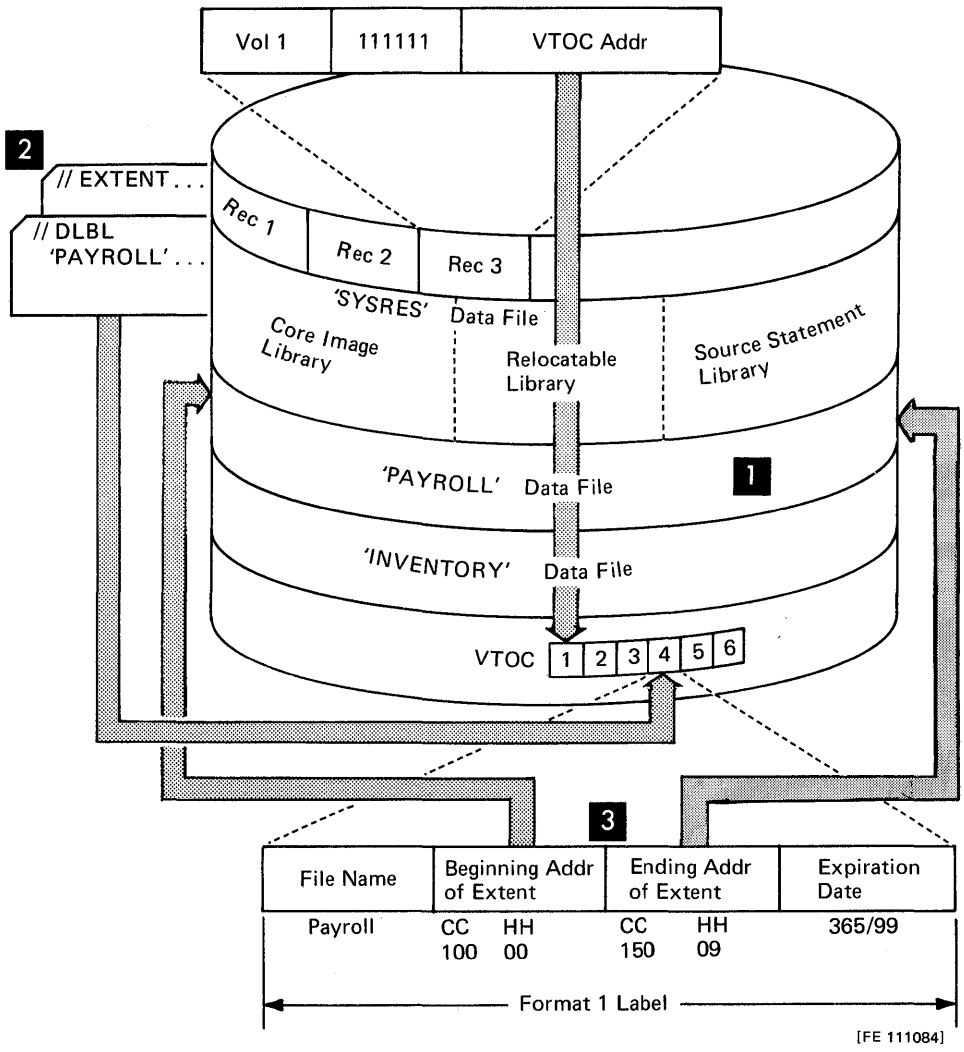


Figure 3.8 File Labels

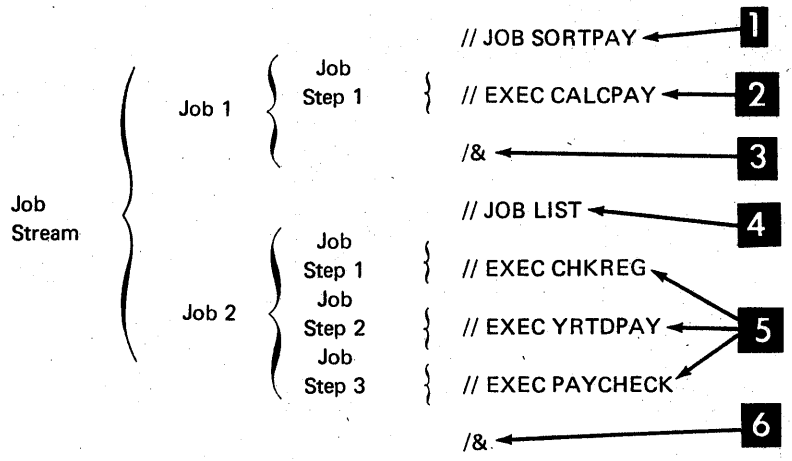


Figure 5.1 Job Stream 1

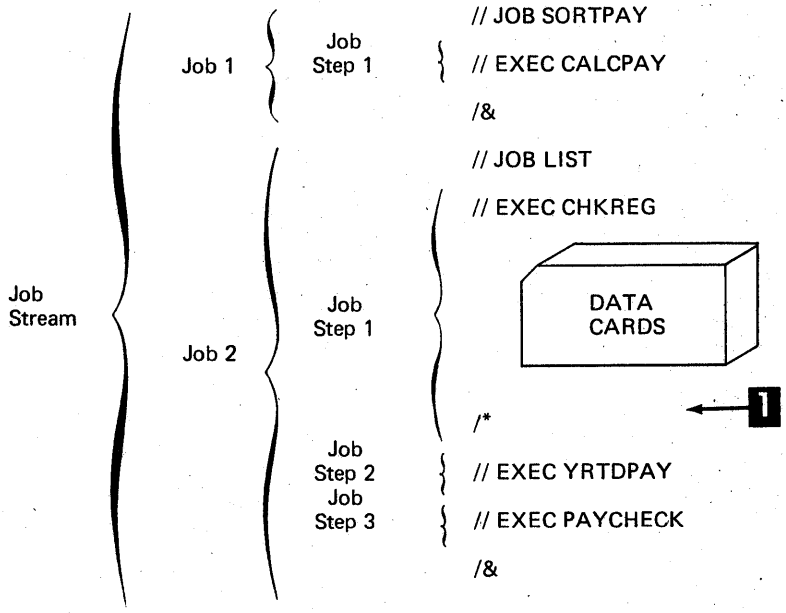


Figure 5.2 Job Stream 2

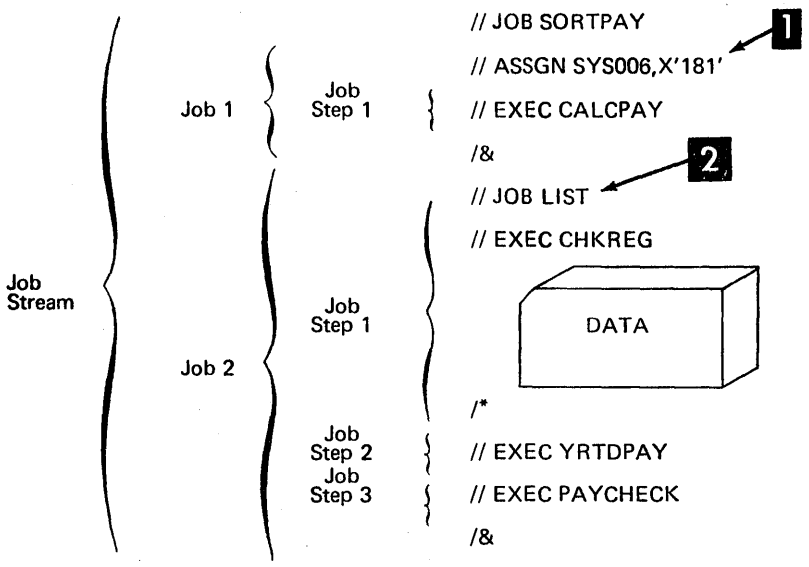


Figure 5.3 Job Stream 3 (Temporary Assignment)

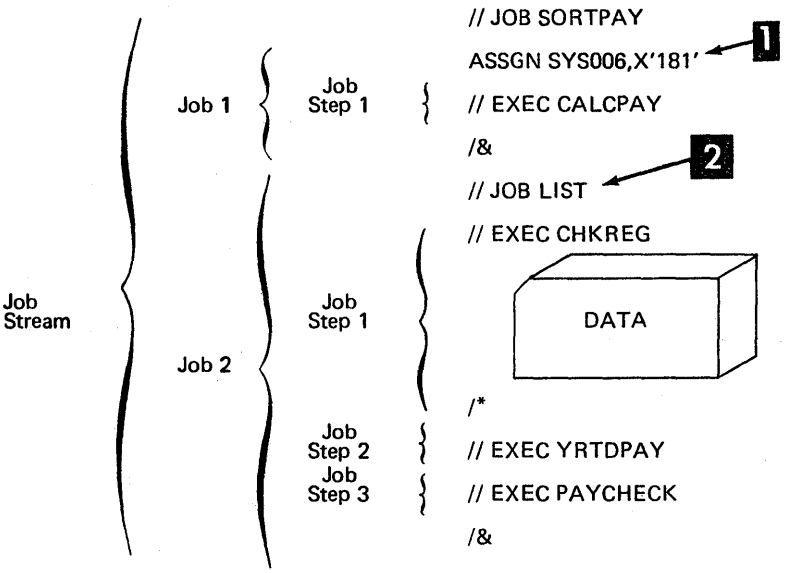
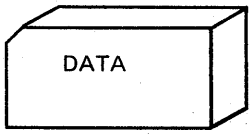


Figure 5.4 Job Stream 4 (Permanent Assignment)

```
// JOB SORTPAY
// OPTION LOG
// EXEC CALCPAY
/&
```

This OPTION statement causes the job control statements to print on the printer.

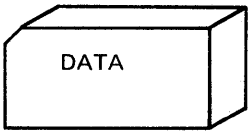
```
// JOB ASSEMBLE
// OPTION DECK
// EXEC ASSEMBLY
```




```
/*
/&
```

This OPTION statement causes an object module to punch out for this assembly. (Required only if NODECK was specified at SYSGEN time.)

```
// JOB ASSEMBLE
// OPTION LOG,DECK,DUMP
// EXEC ASSEMBLY
```




```
/*
/&
```

This Option statement includes the 2 previous options. It will also cause a dump of the registers and core storage on the printer, if the program ASSEMBLY terminates abnormally.

Figure 5.5 Using the OPTION Statement

```
// JOB SORTPAY
// ASSGN SYS006,X'181'
// PAUSE  Mount master Payroll file on SYS006
// EXEC CALCPAY
/&
// JOB LIST
```

Figure 5.6 Using the PAUSE Statement

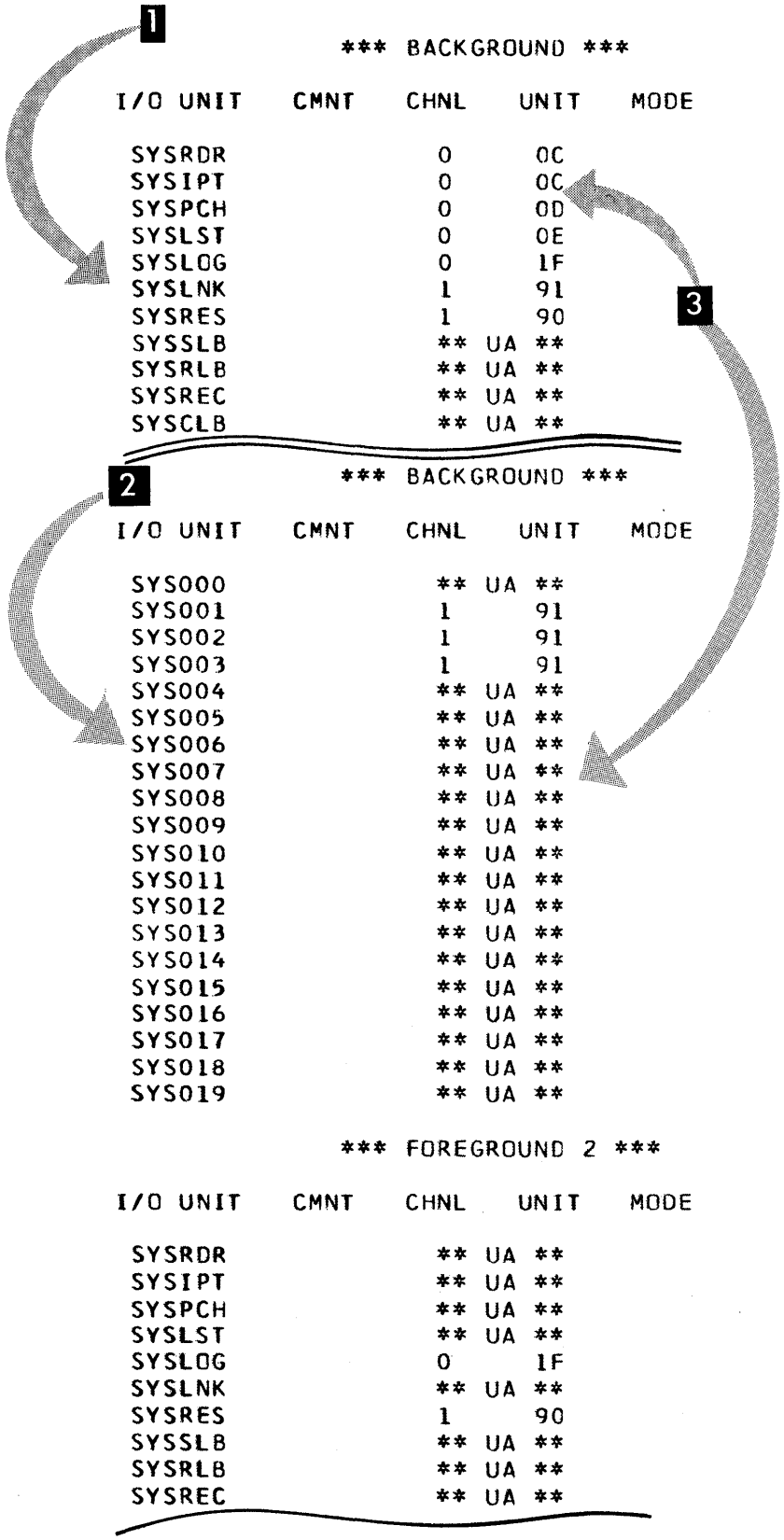


Figure 5.7 // LISTIO ALL PRINTOUT (Partial)

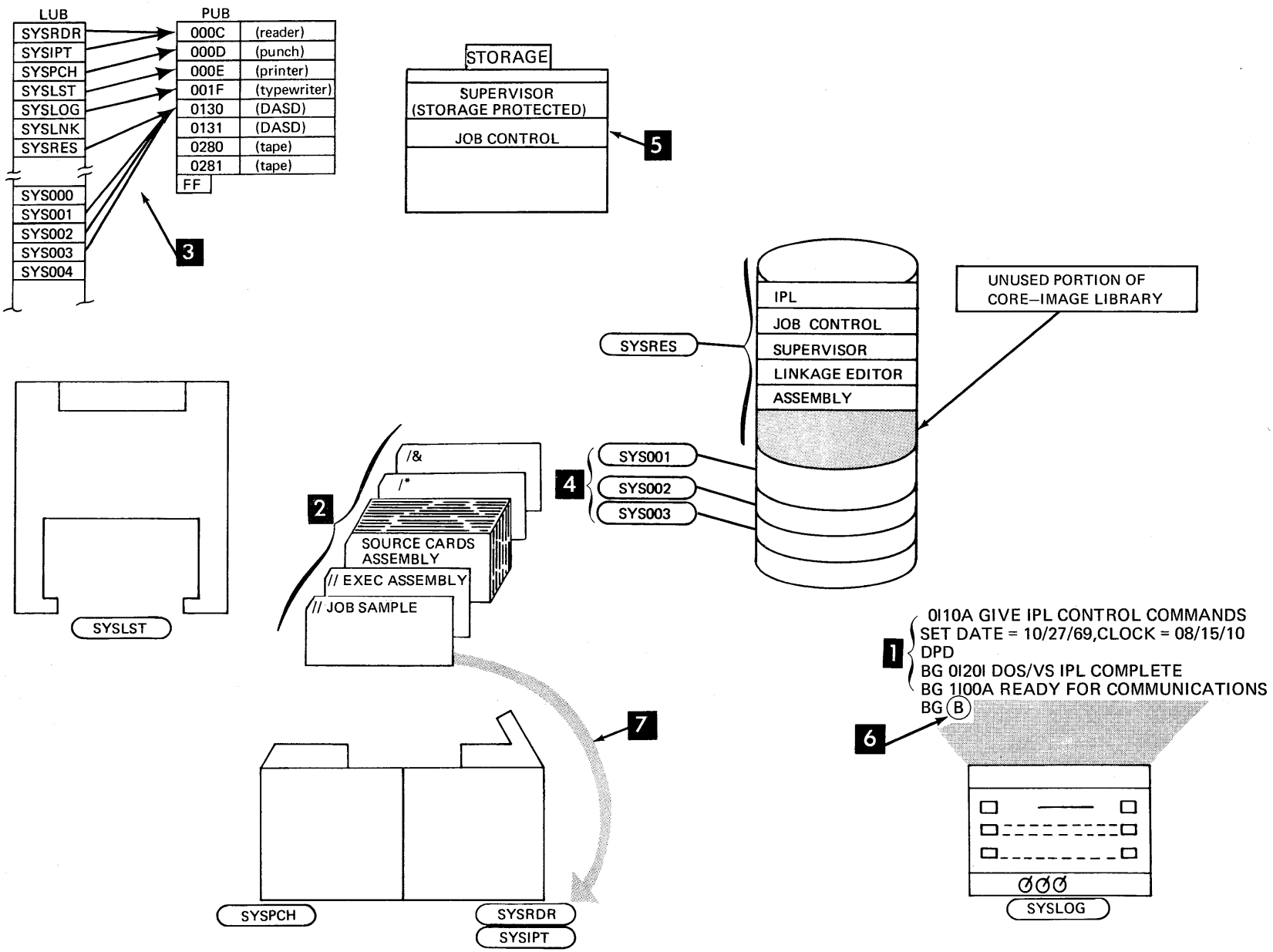


Figure 5.8 Assembler Job Stream (Initial Setup)

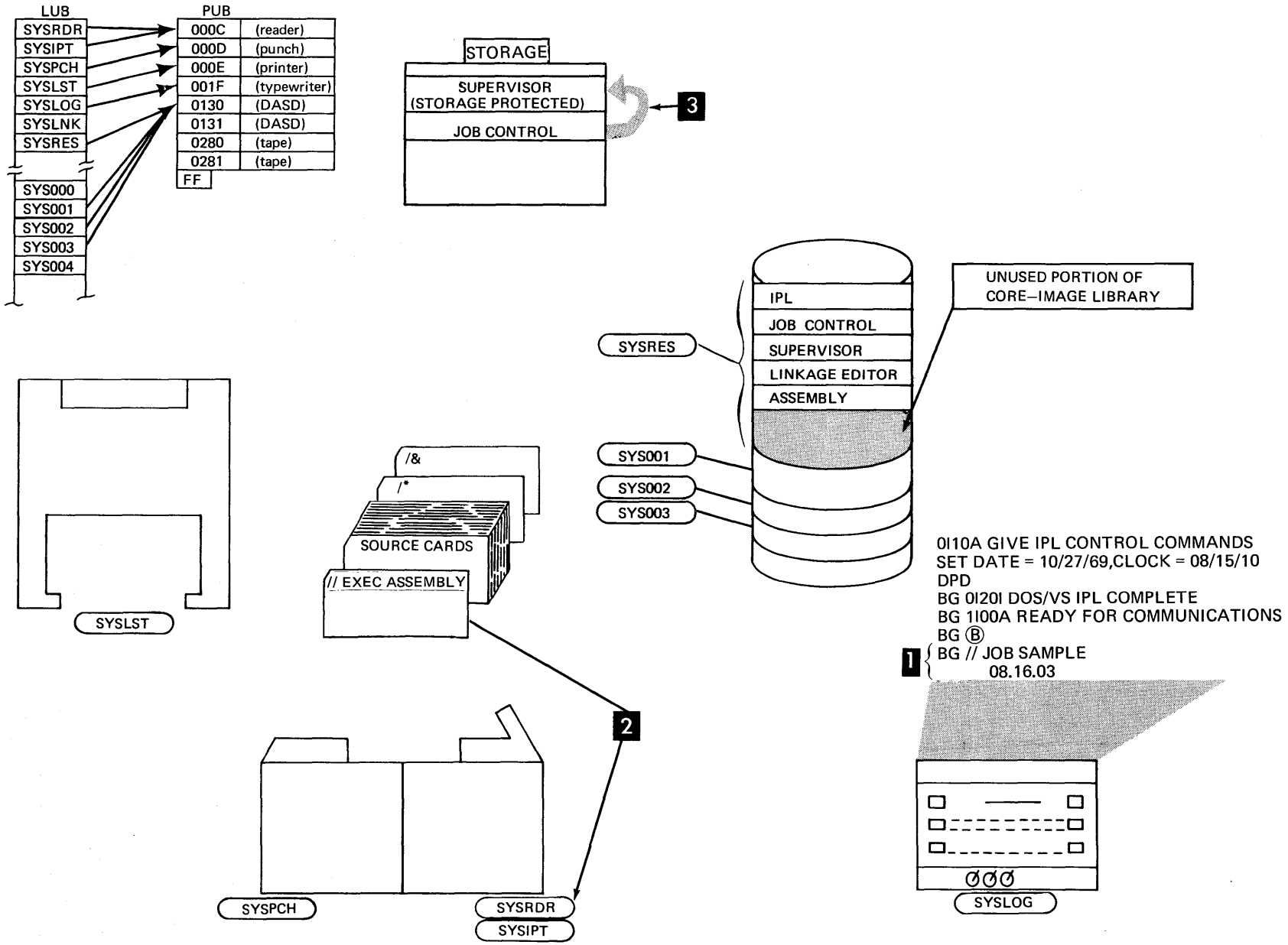


Figure 5.9 Assembler Job Stream (Job Control)

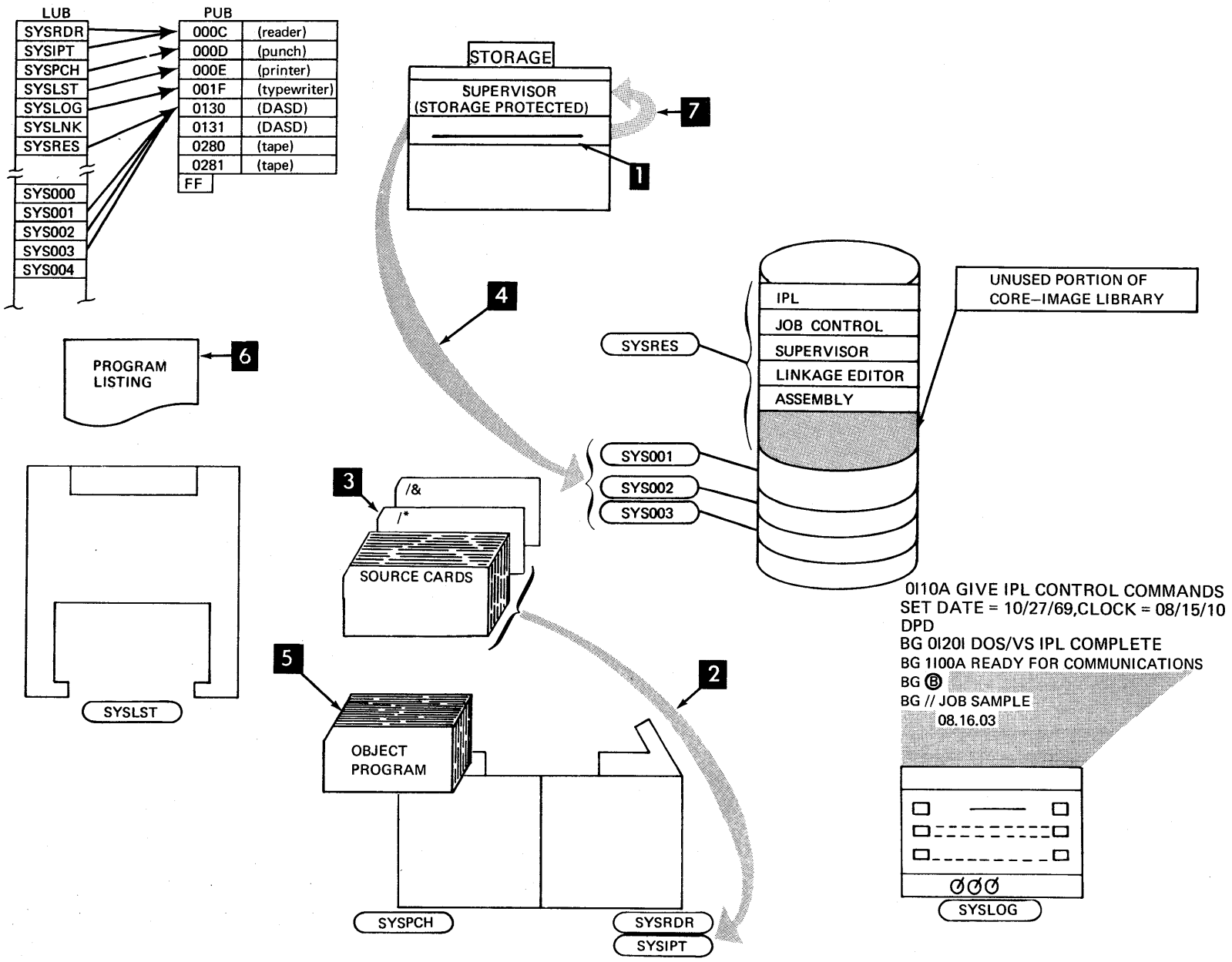


Figure 5.10 Assembler Job Stream (Assembly Time)

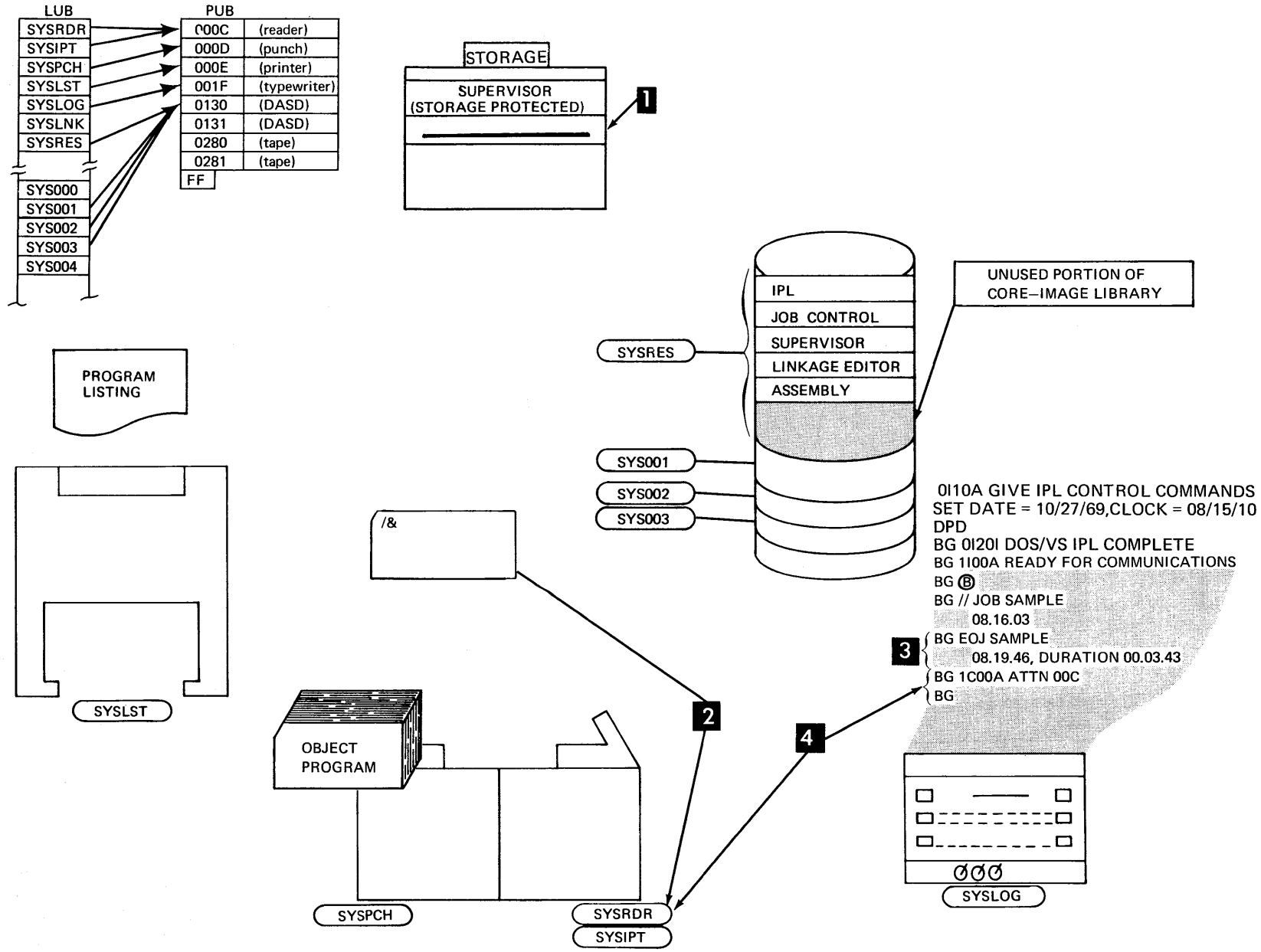


Figure 5.11 Assembler Job Stream (End-of-Job)

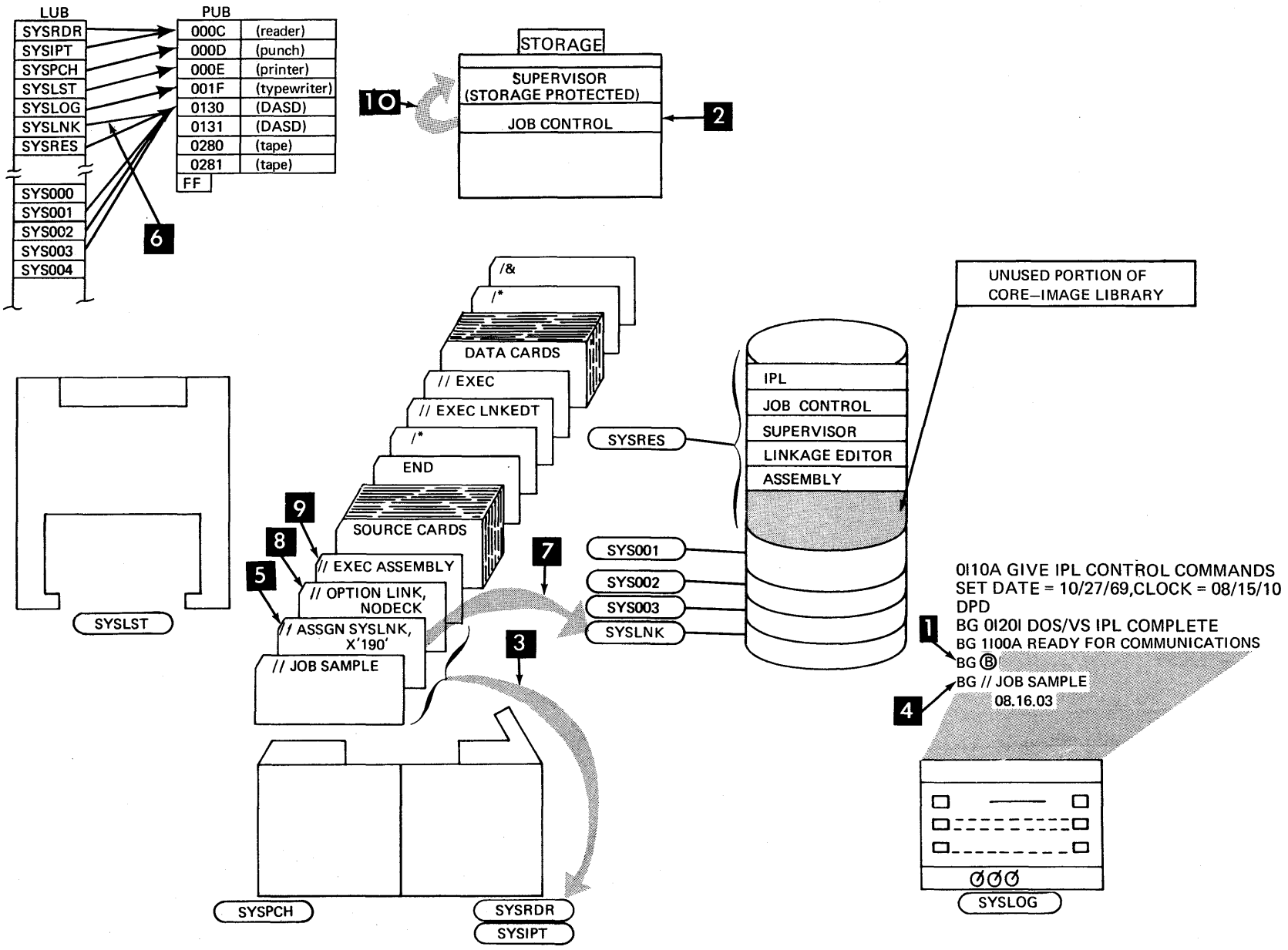


Figure 5.12 Assemble Linkedit and Execute Job Stream (Initial Setup)

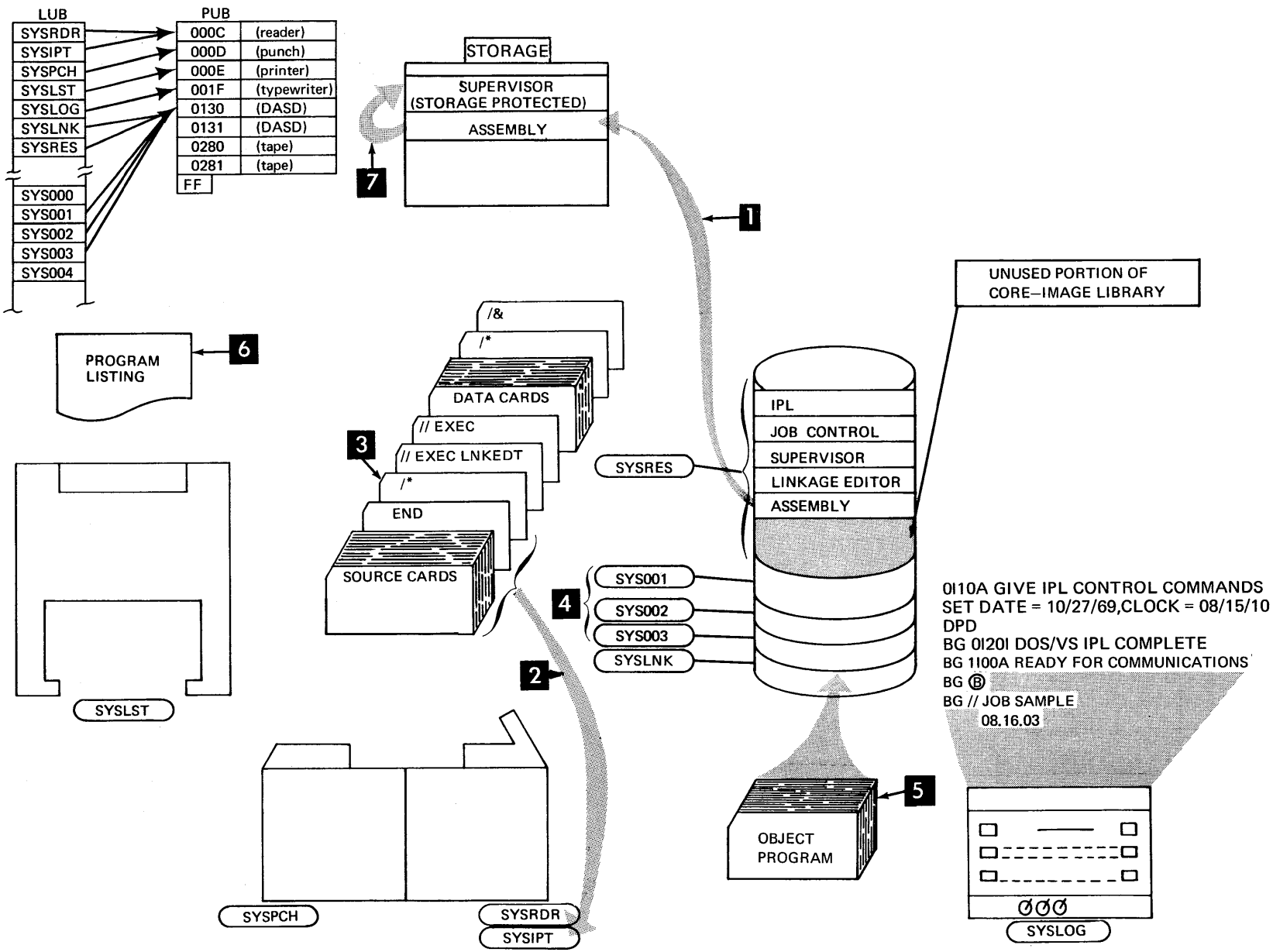


Figure 5.13 Assemble Linkedit and Execute Job Stream (Assembler)

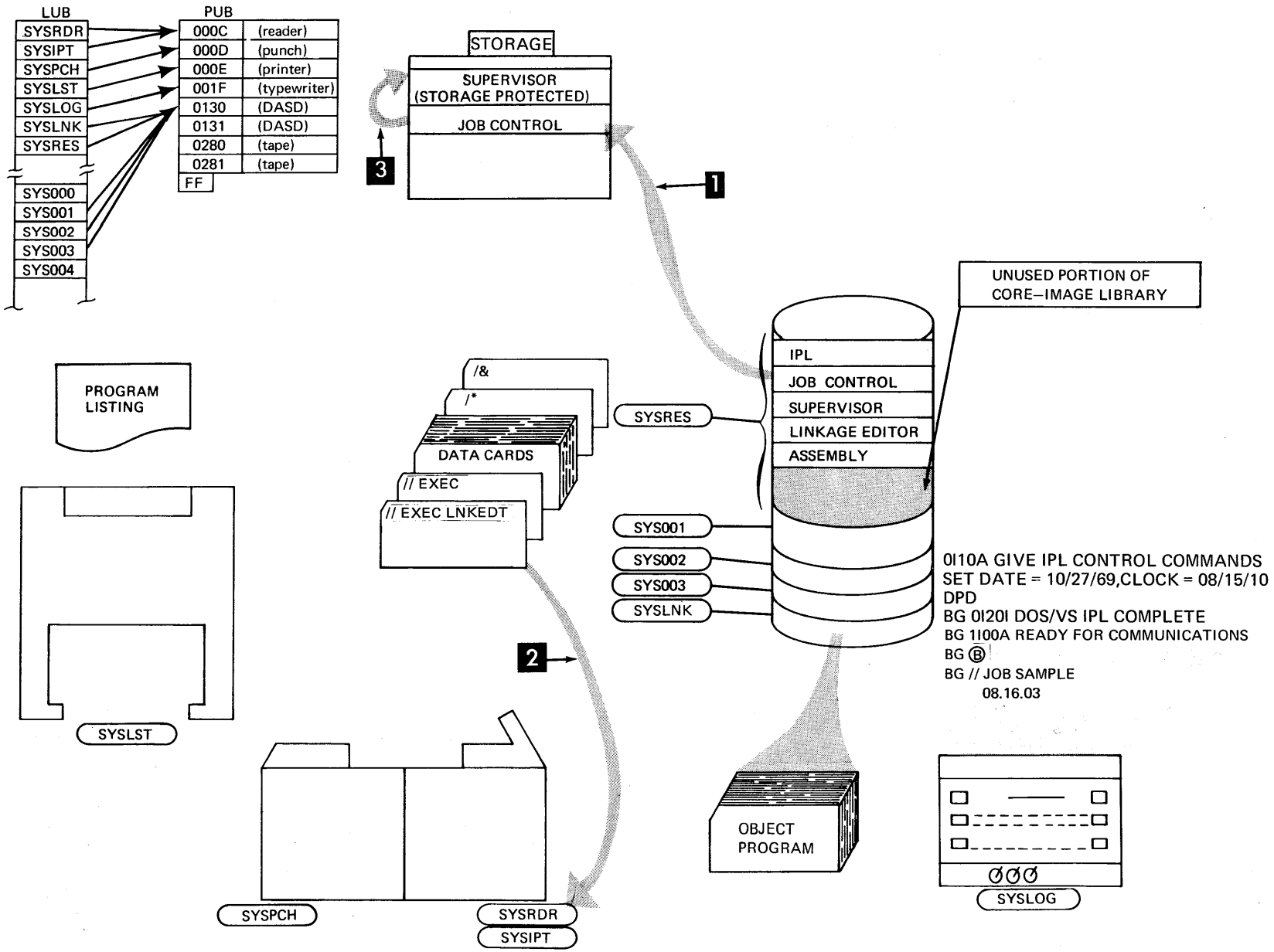


Figure 5.14 Assemble Linkedit and Execute Job Stream (Linkedit 1)

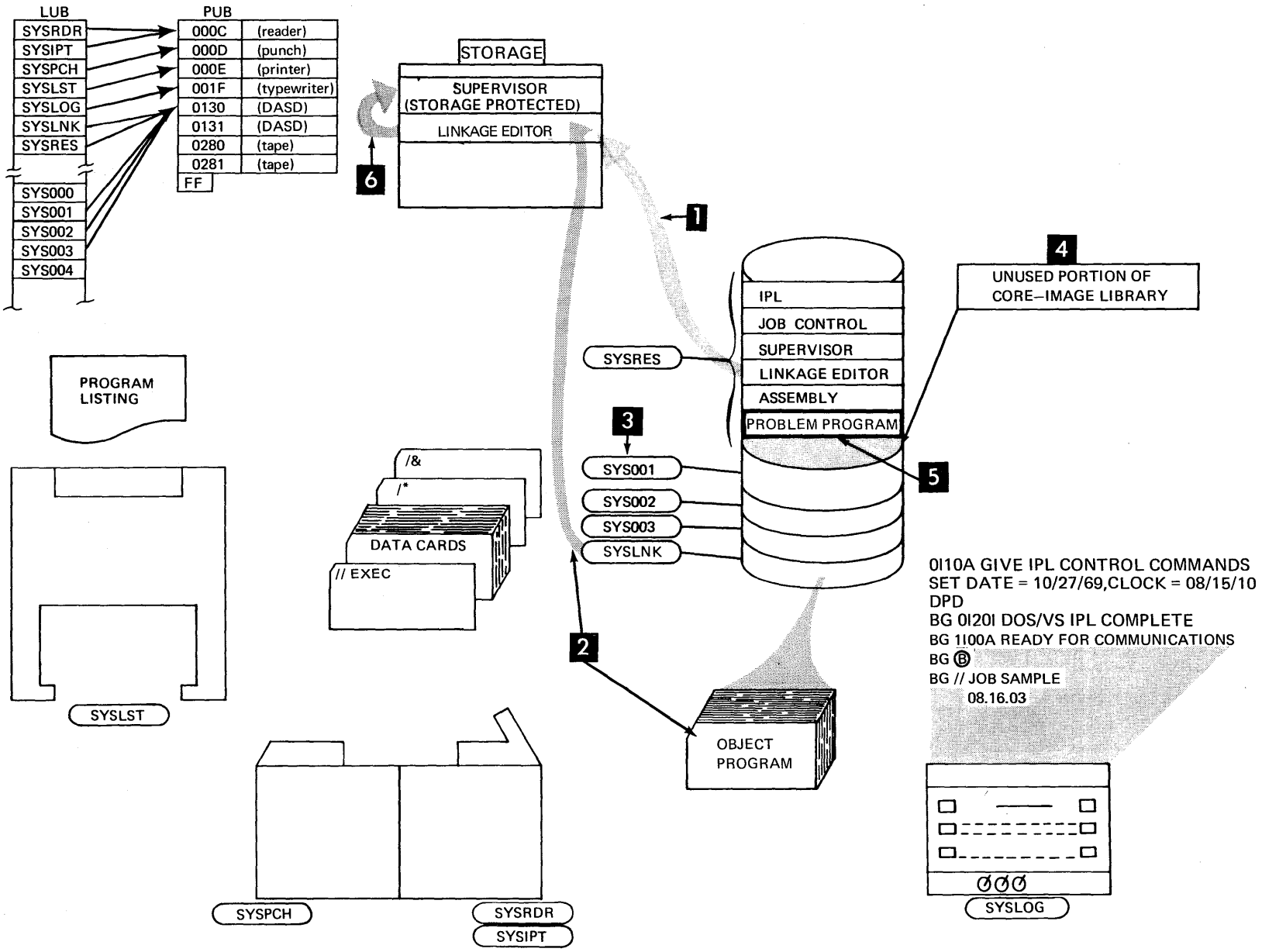


Figure 5.15 Assemble Linkedit and Execute Job Stream (Linkedit Time)

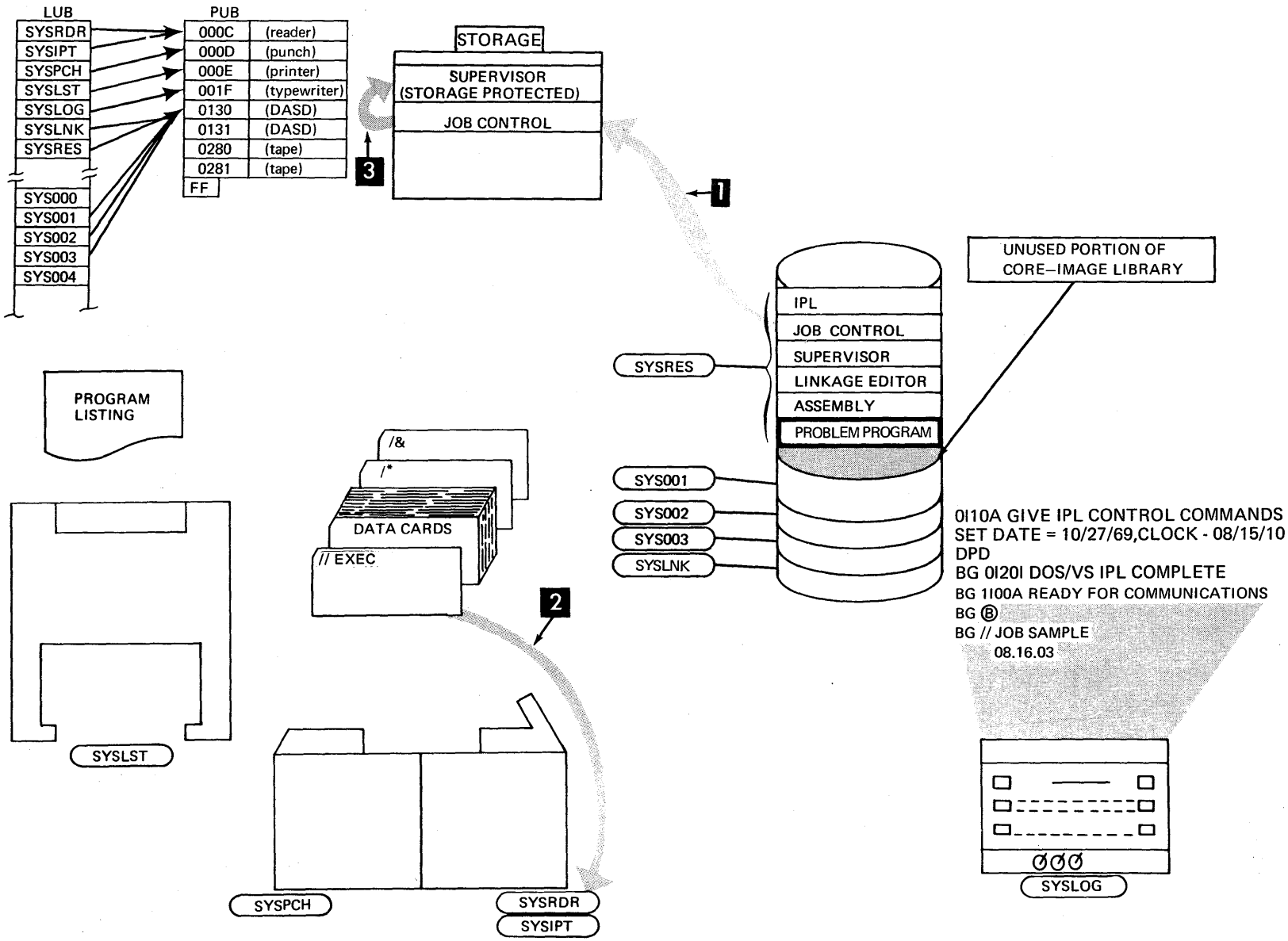


Figure 5.16 Assemble Linkedit and Execute Job Stream (Job Control)

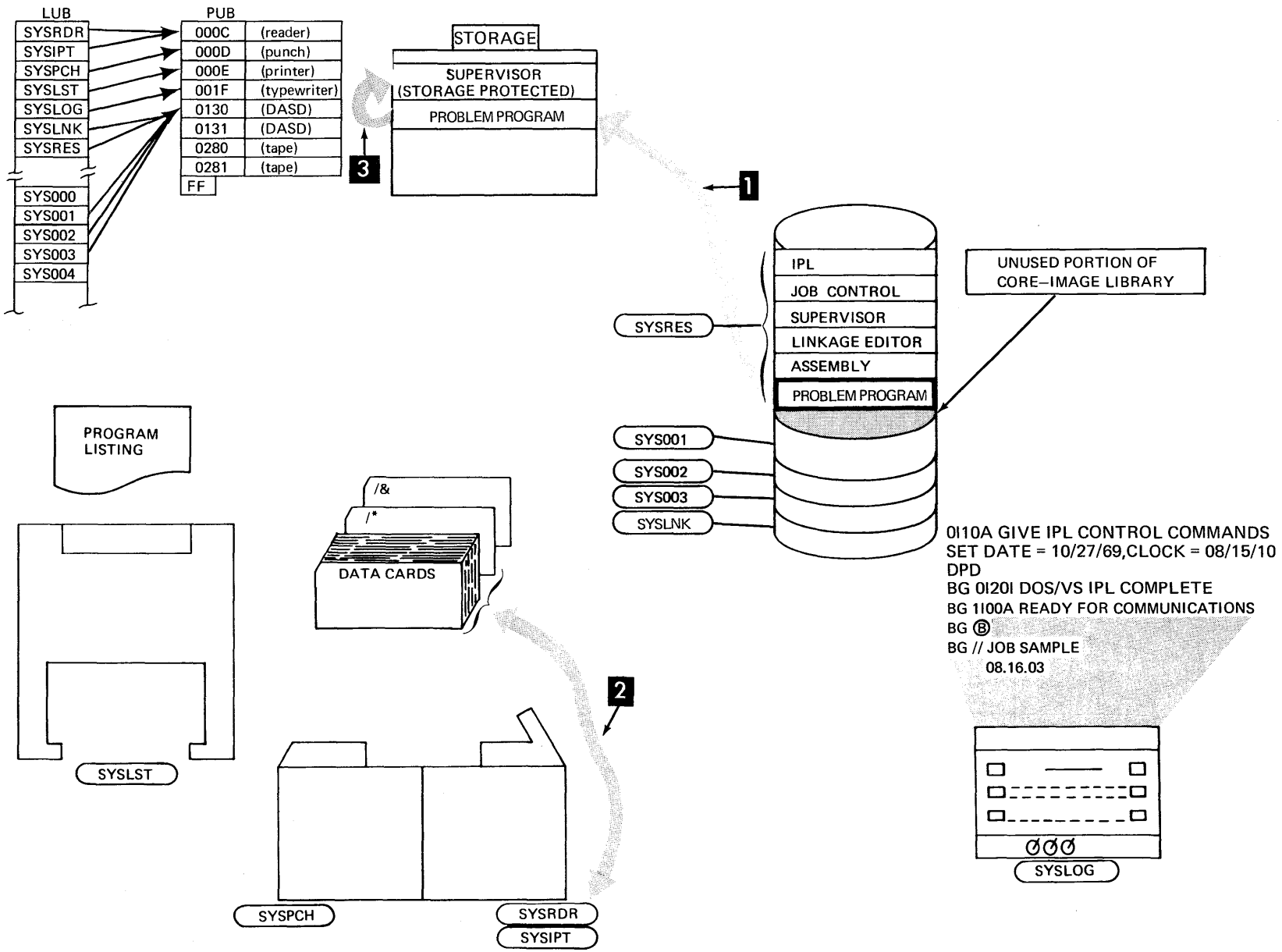


Figure 5.17 Assemble Linkedit and Execute Job Stream (Execution Time)

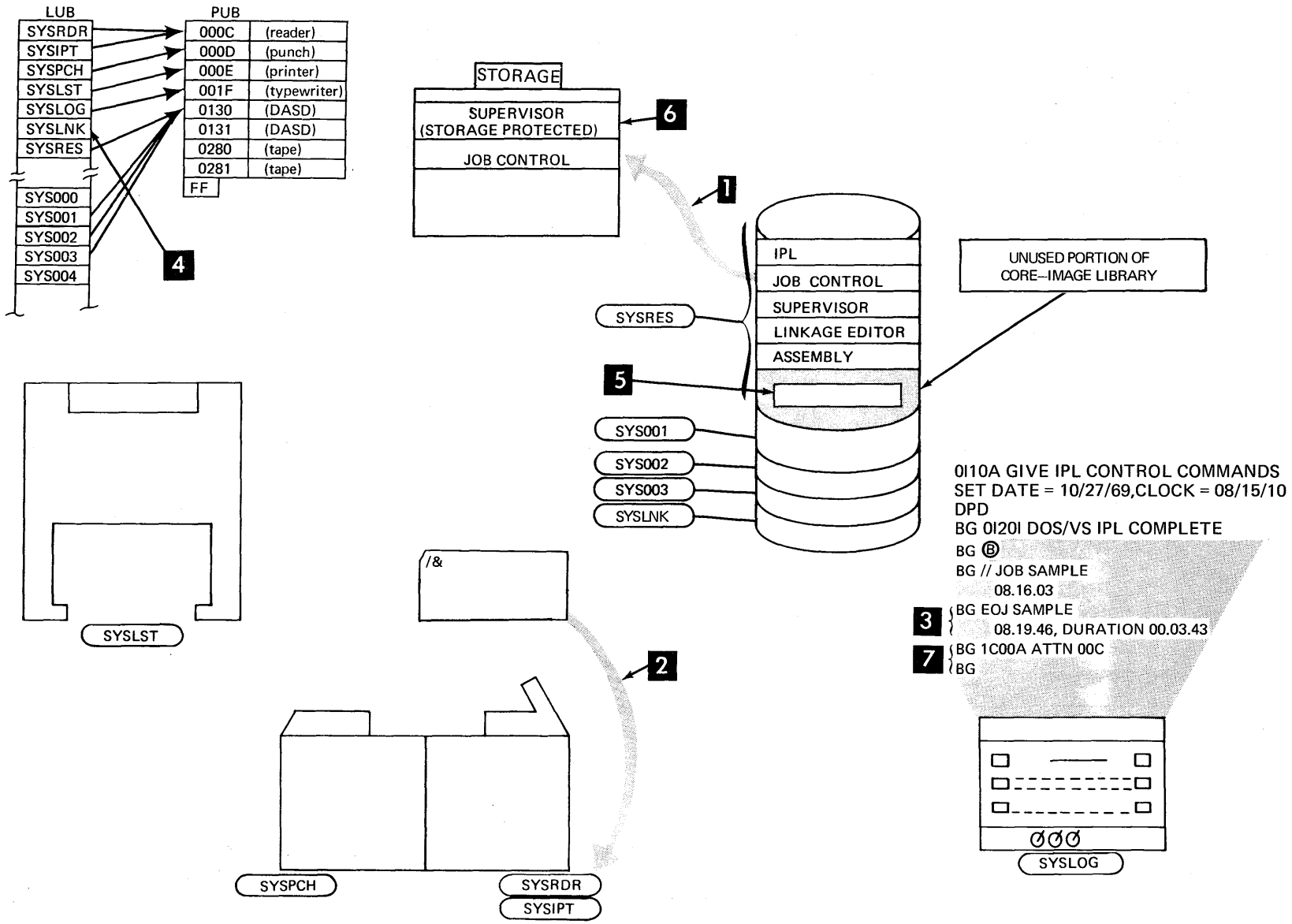


Figure 5.18 Assemble Linkedit and Execute Job Stream (End-of-Job)

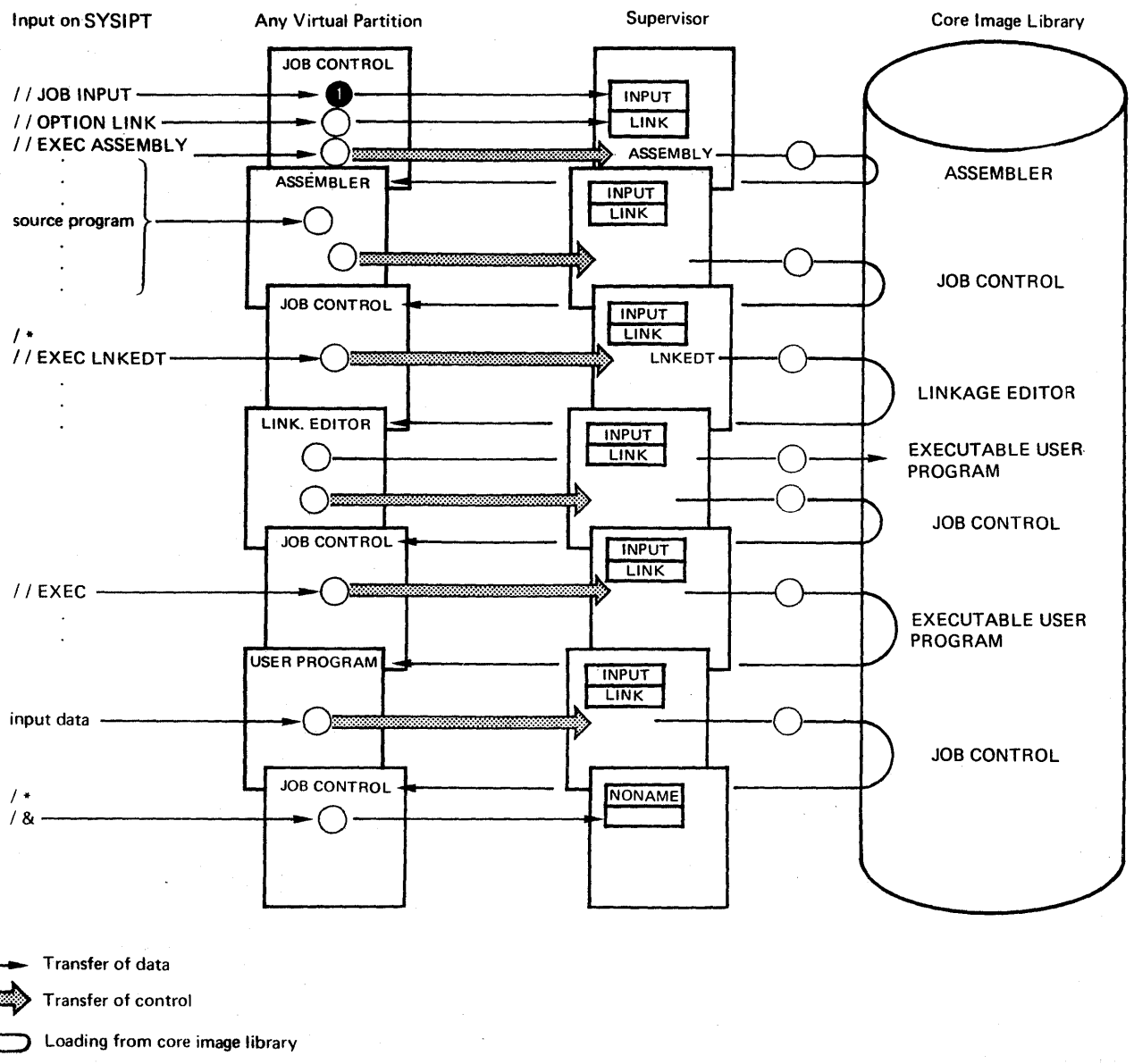


Figure 5.19 Work Project

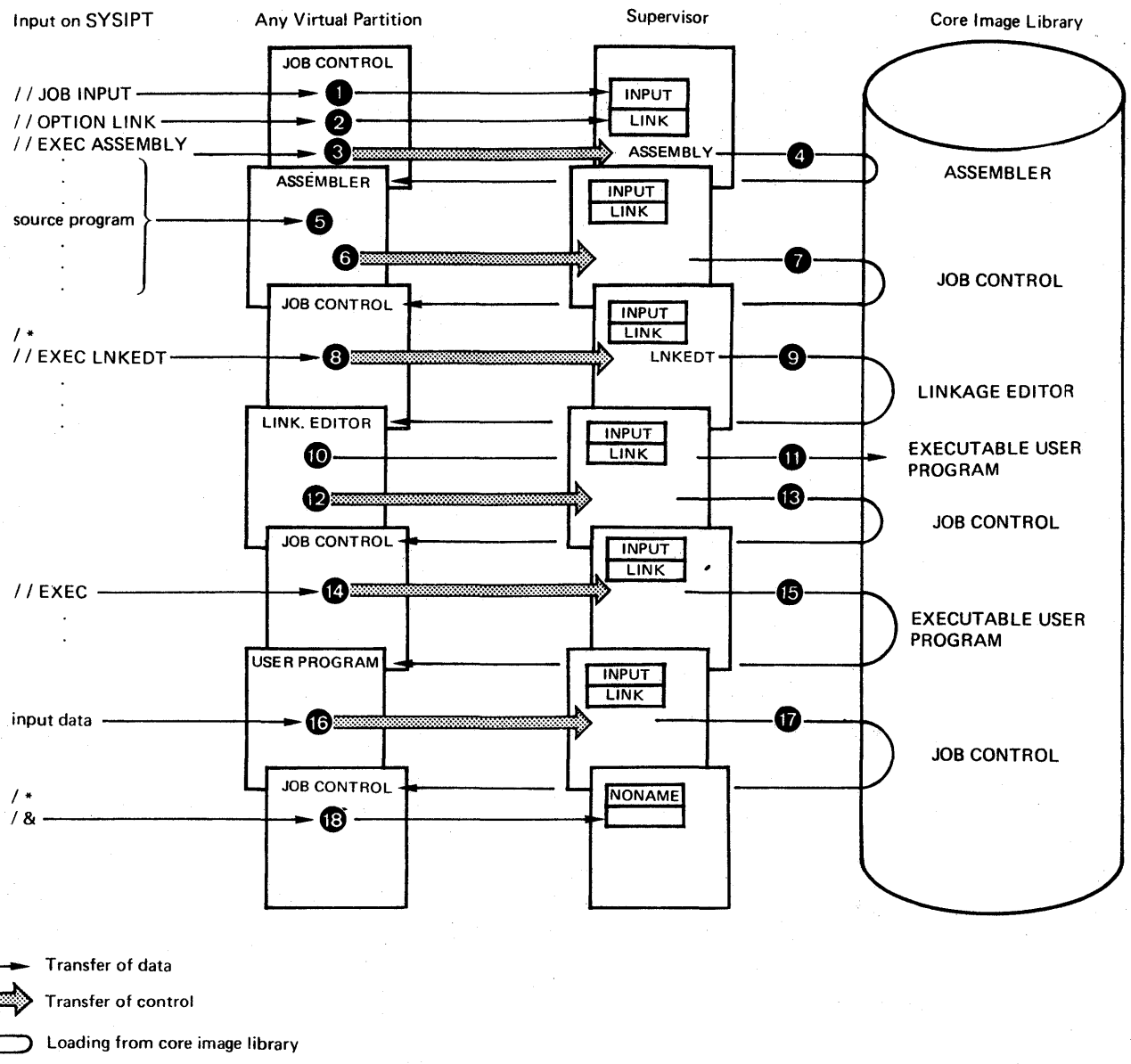


Figure 5.20 (Part 1 of 2) Work Project Solution

1. Job control reads the JOB statement and stores the job name in the communications region in the supervisor.
2. Job control reads the OPTION statement with the LINK option and sets the LINK bit in the supervisor. This indicates:
    a. to the assembler, that the assembled object module is to be written onto SYSLNK.
    b. to the linkage editor, that the executable program is to be stored in the core image library only temporarily for execution in the same job.
3. On encountering the // EXEC ASSEMBLY statement, job control transfers control to the supervisor passing it to the name of the assembler program.
4. The supervisor loads the assembler into the partition, overlaying job control.
5. The assembler reads the source program, assembles it, and stores the object module on SYSLNK (not shown).
6. The assembler transfers control to the supervisor.
7. The supervisor loads job control into storage, overlaying the assembler.
8. Job control reads the // EXEC LNKEDT statement and transfers control to the supervisor, passing it the name of the linkage editor.
9. The supervisor loads the linkage editor into storage, overlaying job control.
10. The linkage editor reads the object module from SYSLNK and linkedits it.
11. The linkage editor stores the executable program in the core image library.
12. The linkage editor transfers control to the supervisor.
13. The supervisor loads job control into storage.
14. Job control reads an EXEC statement without a program name.
15. The program last stored in the core image library by the linkage editor to be loaded and executed.
16. The user program is executed. It reads and processes the data from SYSIPT and relinquishes control to the supervisor.
17. The supervisor loads job control.
18. When job control reads the / & statement, it cancels the LINK option and replaces the jobname by NONAME in the communications region.

Figure 5.20 (Part 2 of 2) Work Project Solution

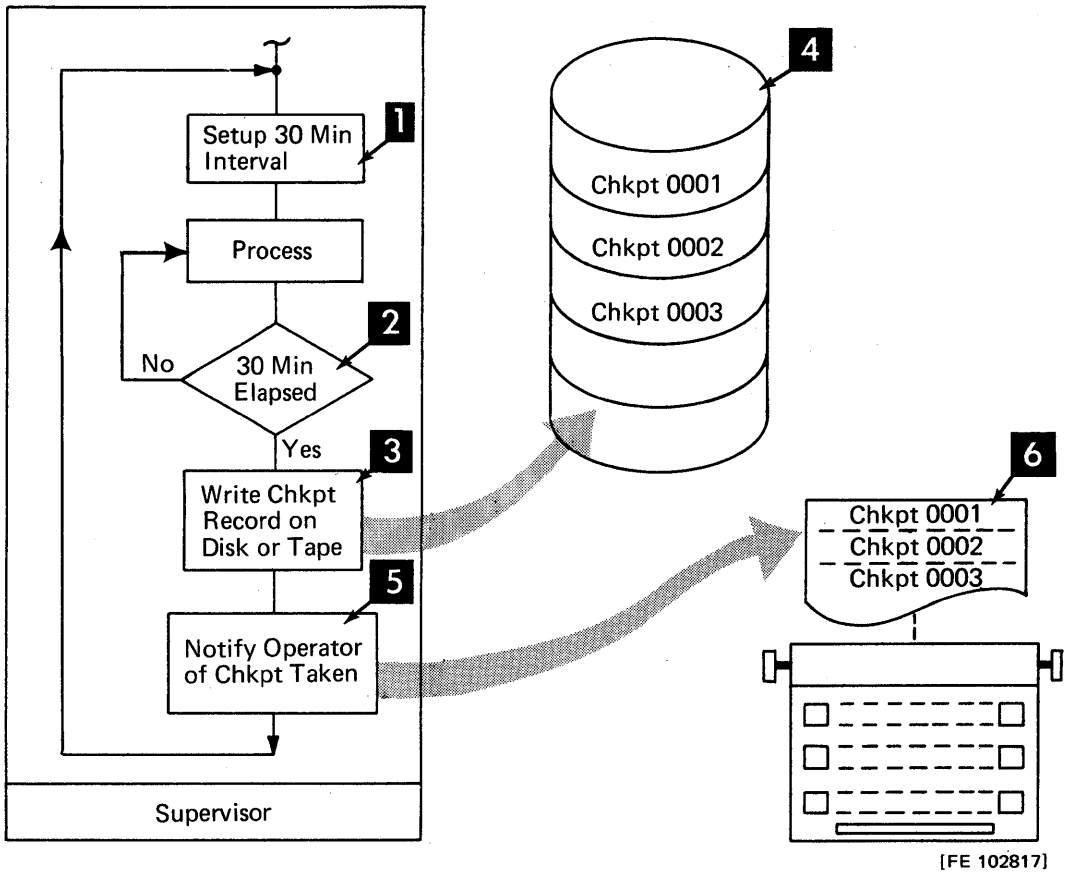


Figure 5.21 Checkpoint Program

TO RESTART

THE OPERATOR READS THE CONSOLE LOG AND PUNCHES THE JOB CONTROL CARD

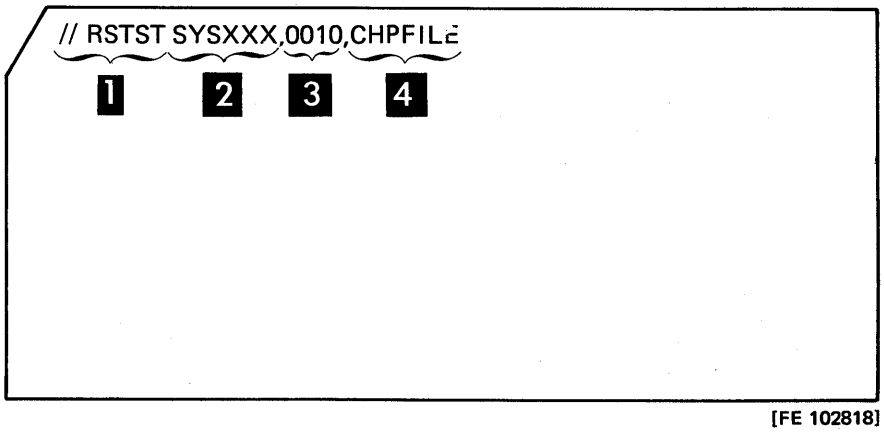


Figure 5.22 Checkpoint Job Control Statement

```
                                EXTERNAL SYMBOL DICTIONARY                PAGE    1

SYMBOL    TYPE          ID  ADDR   LENGTH LD-ID
START     SD (CSECT)    01 000000 0000F8
```


Figure 6.1 (Part 1 of 6)

```
1                               2                                                                   3
EXAMPLE                         SAMPLE PROGRAM                                                      PAGE    2

4      5               6       7         8                                        13                     14
LOC    OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                         DOS/VS ASSEMBLER V 28.0 15.52 73-05-31

000000                                 1 START     START 0
000000 0520                            2           BALR  2,0
                             00002     3        12-USING *,2
000002 5850 2026             00028     4           L     5,CONST
000006 45E0 208A             0008C     5 AGAIN     BAL   14,READ              READ A CARD
00000A 1B88                            6           SR    8,8              ZERO REGISTER 8
00000C 4188 0001             00001     7 LOOP1     LA    8,1(8)               ADD 1 TO REGISTER 8
000010 1958                            8 CK        CR    5,8          COUNT EQUALS 4096
000012 4740 200A             0000C     9           BC    4,LOOP1
000016 5880 2032             00034    10 SETUP     L     8,IN          LOCATE I/O AREA ADDRESS
00001A D207 0050 202A 00050  0002C    11           MVC   80(8,0),LABEL           MOVE PROCESS TO I/O AREA OF PRINT
000020 45E0 20BE             000C0    12           BAL   14,PRINT              PRINT A LINE
000024 47F0 2004             00006    13           BC    15,AGAIN              GO TO READ ANOTHER CARD
000028 00001000                       14 CONST     DC    F'4096'
00002C D7D9D6C3C5E2E240               15 LABEL     DC    CL8'PROCESS'
000034 4040404040404040               16 IN        DC    CL88' '     I/O AREA FOR BOTH THE READER AND PRINTER
                   9                  17 ERROR     DC    CL5'
          *** ERROR ***
                                      18 ************  DO NOT ALTER ANY OF THE FOLLOWING INSTRUCTIONS    *****  ********
                                      19 READ      EXCP  RD
                                      20+* SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                   15050028
00008C 5810 20EE             000F0    21+READ      L     1,=A(RD)                                               35000025
000090 0A00                           22+          SVC   0                                                   EM 55010028
                                      23           WAIT  RD
                                      24+* SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                          12000028
000092 5810 20EE             000F0    25+          L     1,=A(RD)                                               30000025
000096 9180 1002       00002          26+          TM    2(1),X'80'                                             54000025
00009A 4710 209E       000A0          27+          BO    *+6                                                    57000025
00009E 0A07                           28+          SVC   7                                                      60000025
0000A0 9101 20AA       000AC          29           TM    RD+4,X'01'
0000A4 078E                           30           BCR   8,14
                                      31           EOJ
                                      32+* SUPVR COMMN MACROS - EOJ - 5745-SC-SUP - REL. 28.0                   40000028
0000A6 0A0E                           33+          SVC   14                                                     50000025
                                      34 RD        CCB   SYSIPT,RDCCW
                                      35+* SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0                   07100028
0000A8 0000                           36+RD        DC    XL2'0' .          RESIDUAL COUNT                       49000028
0000AA 0000                           37+          DC    XL2'0'     .        COMMUNICATIONS BYTES               50000028
0000AC 0000                           38+          DC    XL2'0' .          CSW STATUS BYTES                     51000028
0000AE 00                             39+          DC    AL1(0)     .          LOGICAL UNIT CLASS               52000028
0000AF 01                             40+          DC    AL1(1)   .          LOGICAL UNIT                       53000028
0000B0 00                             41+          DC    XL1'0'                                                 54000028
0000B1 0000B8                         42+          DC    AL3(RDCCW)  .     CCW ADDRESS                          55000028
0000B4 00                             43+          DC    B'00000000'    .      STATUS BYTE                      56000028
0000B5 000000                         44+          DC    AL3(0) .          CSW CCW ADDRESS                      57000028
0000B8 0200003420000050               45 RDCCW     CCW   2,IN,X'20',80
                                      46 PRINT     EXCP  PRINT1
                                      47+* SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                   15050028
0000C0 5810 20F2             000F4    48+PRINT     L     1,=A(PRINT1)                                           35000025
0000C4 0A00                           49+          SVC   0                                                   EM 55010028
                                      50           WAIT  PRINT1
```

Figure 6.1 (Part 2 of 6)

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                    DOS/VS ASSEMBLER V 28.0 15.52 73-05-31

                                    51+* SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                          12000028
0000C6 5810 20F2            000F4   52+         L     1,=A(PRINT1)                                           30000025
0000CA 9180 1002      00002         53+         TM    2(1),X'80'                                             54000025
0000CE 4710 20D2      000D4         54+         BO    *+6                                                    57000025
0000D2 0A07                         55+         SVC   7                                                      60000025
0000D4 07FE                         56          BCR   15,14
                                    57 PRINT1   CCB   SYS002,PRINTCCW
                                    58+* SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0                   07100028
0000D6 0000                         59+PRINT1   DC    XL2'0' .            RESIDUAL COUNT                     49000028
0000D8 0000                         60+         DC    XL2'0'       .        COMMUNICATIONS BYTES               50000028
0000DA 0000                         61+         DC    XL2'0' .             CSW STATUS BYTES                   51000028
0000DC 01                           62+         DC    AL1(1)       .           LOGICAL UNIT CLASS              52000028
0000DD 02                           63+         DC    AL1(2)     .           LOGICAL UNIT                      53000028
0000DE 00                           64+         DC    XL1'0'                                                 54000028
0000DF 0000E8                       65+         DC    AL3(PRINTCCW) .     CCW ADDRESS                        55000028
0000E2 00                           66+         DC    B'00000000'      .      STATUS BYTE                     56000028
0000E3 000000                       67+         DC    AL3(0) .            CSW CCW ADDRESS                    57000028
0000E6 0000
0000E8 0900003420000058             68 PRINTCCW CCW   9,IN,X'20',88
                                    69          11    END

0000F0 000000A8                     70                =A(RD)
0000F4 000000D6                     71          10    =A(PRINT1)
```


Figure 6.1 (Part 3 of 6)

ESDID FOR ADDR CON	ESDID FOR REF SYMBOL	TYPE	LENGTH	ADDRESS
01	+01	A	3	0000B1
01	+01	CCW	3	0000B9
01	+01	A	3	0000DF
01	+01	CCW	3	0000E9
01	+01	A	4	0000F0
01	+01	A	4	0000F4

Figure 6.1 (Part 4 of 6)

15 16 17 18 19

SYMBOL	LEN	ID	VALUE	DEFN	REFERENCES		
AGAIN	00004	01	000006	00005	0013		
CK	00002	01	000010	00008			
CONST	00004	01	000028	00014	0004		
IN	00088	01	000034	00016	0010	0045	0068
LABEL	00008	01	00002C	00015	0011		
LOOP1	00004	01	00000C	00007	0009		
PRINT	00004	01	0000C0	00048	0012		
PRINTCCW	00008	01	0000E8	00068	0065		
PRINT1	00002	01	0000D6	00059	0071		
RD	00002	01	0000A8	00036	0029	0070	
RDCCW	00008	01	0000B8	00045	0042		
READ	00004	01	00008C	00021	0005		
SETUP	00004	01	000016	00010			
START	00001	01	000000	00001			
=A(PRINT1)							
	00004	01	0000F4	00071	0048	0052	
=A(RD)	00004	01	0000F0	00070	0021	0025	

Figure 6.1 (Part 5 of 6)

```
20      21          22
STMNT ERROR NO.  MESSAGE

  17   IPK115    UNPAIRED APOSTROPHE

23
THE FOLLOWING MACRO NAMES HAVE BEEN FOUND IN MACRO INSTRUCTIONS
   EXCP      WAIT      EOJ       CCB       BTWAIT

OPTIONS FOR THIS ASSEMBLY - ALIGN, LIST, XREF, LINK, DECK, EDECK

THE ASSEMBLER WAS RUN IN 65416 BYTES
END OF ASSEMBLY
```


Figure 6.1 (Part 6 of 6)

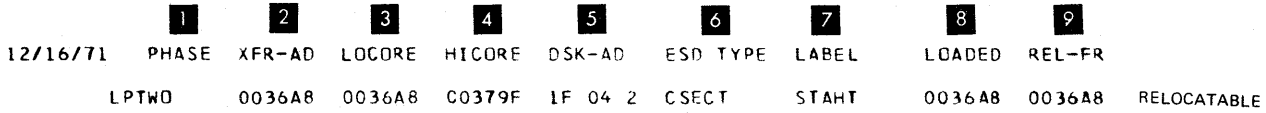

1
2
3
4
5
6
7
8
9
12/16/71 PHASE XFR-AD LOCORE HICORE DSK-AD ESD TYPE LABEL LOADED REL-FR
LPTWO 0036A8 0036A8 C0379F 1F 04 2 CSECT STAHT 0036A8 0036A8 RELOCATABLE

Figure 6.2

```
           1                     2
        TA#01                 12/16/71                                                               10.31.52              3
                                                                                                                          PAGE    1

 GR 0-7  000036A8 00003750 500036AA 00003C00   00007FDC 00001000 000036A8 00002CF0}
 GR 8-F  000036DC 0A0407F1 00003010 C0003010   0C003F00 00004F00 9C0036B2 00000023}  4
 FP REG  C1107A57 00000000 C1107A57 00000000   F9F9F9F9 F9F9F9F9 F9F9F9F9 F9F9F9F9 <-- 5
 CR  0-F 004000E0 00006C30 FFFFFFFF 00000000   00000000 00000000 00000000 00000000}
         0000FFFF 00000000 00000000 00000000   00000000 00000000 00000000 00000200}  6
 COMREG  BG ADDR IS 000290 <-- 7

 000000  00000000 00000000 00000000 00000000   00000000 00000290 FF050000 00000000     ................  ................
 000020  FF050007 400028BE FF150004 E00036C6   5B5BC2C5 06D1F340 FF15000E 9C00373A  9  .... ..........H  $$BEOJ3 ........
 000040  000029E0 08000000 000029D0 00000000   FE6EF100 01ABFCE2 00040000 0F001C00     ................  ..1....S........
 000060  00040000 0000037E 00040000 00001BC0   00000000 00000DB4 00040000 00000324     ................  ................
 000080  00000000 00000000 00000000 00000003   00050003 06B006B0 06B041BB 00734570     ................  ................
 0000A0  0146940F BBC141A0 C0804570 0D7E18A8   419C0186 4180BA24 47F000DA 06B006B0     .....A..........  ..........O.....
 0000C0  06B006B0 06B006B0 06B041BB 001741BB   00504570 01464180 01869640 A0019120     ................  .&........ .....
 0000E0  A00C4710 00EA9260 A00195E2 A0024780   B0BC95C1 A0024780 B0BC9561 A0024780     .......-...S....  ...A......./....
 000100  010E9104 A0004780 010E9203 008F9281   A0004BA0 02EA487A C02C49A0 02FE41AA     ................  ................
 000120  C0700778 94F9703B D7017058 70589283   A0009680 A0014400 05000788 947FA001     .....9..P.......  ................
 000140  4570B956 07F842B0 00E758B0 02789180   A0000717 5890A004 488001F8 5000902C     .....8...X......  ............8&..
 000160  60009058 60209060 60409068 60609070   D21B9010 0258D207 90088000 9680A000     -...-..-- ..--..  K.....K.........
 000180  07F74570 014ED205 B51EB525 DC05B51E   C0701BAA DD06B51E 000C43A1 000742A0     .7....K.........  ................
 0001A0  02BF41AA C0704400 A0045890 A0044220   A0009140 A0014710 020CD207 02589008     ................  ... ......K.....
 0001C0  68009058 68209060 68409068 68609070   4BA002EA 41AAC02C D2010016 A0009898     .......-. ...-..  .........K......
 0001E0  90108200 02584400 A0045890 A0049818   9030989F 02588200 00389284 C0D0D207     ................  ..............K.
 000200  0258B568 9890B570 82000258 18445940   B50C4780 02384BA0 02EA488A C02C4AA0     ..............    ................
 000220  02EA9140 80864780 0238D707 B50C850C   94BF8086 830003CC 9680A000 41100030     ... ......P.....  ................
 000240  47F0B8CA 96030039 96010038 82000038   615C44F0 4110C010 FF050007 400028BE     .0..............  /*.0........ ...
 000260  00001000 00002000 00003000 00004000   00002608 80001792 C0001000 00002000     .............. .  ................
 000280  00003000 00004000 20FAD004 98ECD00C   F1F261F1 F661F7F1 2D583000 00000000     ...... .........  12/16/71........
 0002A0  00000000 00000000 E3C1BBF0 F1404040   00007FFF 0000379F 0000379F 00000010     ........TA.01     ................
 0002C0  0000FFFF F87C4680 A8A04EC0 00B921A3   21AA2243 224422BE 23402344 234838F1     ....8@..........  ........ ......1
 0002E0  F2F1F6F7 F1F3F5F0 00002070 0000000A   1350147A 1524153C 15440010 21840010     21671350........  .&..............
 000300  5B5BC2D6 00060000 020015B0 202C0000   00000000 02900000 C0000000 000029D0     $$BO............  ................
 000320  00002564 923801F9 909F0258 98BE0278   419009A8 48A002BE 4AA002EA 9180A000     .......9........  ................
 000340  47100352 58B0A004 9018B030 98BE0278   07F99601 A00098BE 027895FF A00F0789     ................  .9..............
 000360  5000B58C 48E001F8 D207B568 E00058E0   028494FD B569D21B B5700258 07F9909F     &......8K.......  .......K.......9.
 000380  02589220 01F94590 03344190 01E69500   00234780 04EC95E1 00234740 03C64880     .....9.......W..  ........... .F..
 0003A0  00169140 80864780 03C61B44 5940B50C   478003C6 5840B50C D2074000 0020D202     ... .....F... ..  ...F. ..K. ...K.
 0003C0  0025B511 07F99530 00234780 00BE4860   00221A66 48700288 48667000 07F6181F     .....9.........-  ..............6.
 0003E0  1B664121 000F4570 B2084860 B4881B22   43201007 4130001F 1B234740 04084130     ............-...  ............ ...
 000400  00101B23 47B0040A 1A234220 05E94320   1C0747F0 05624720 00CA4230 05E94820     ..............Z.  ...0..........Z.
 000420  02BE4322 C02F1A23 950B1007 47F0055E   472000C8 4400058E 96801002 960C1004     ..............0.  ...H............
 000440  07F91858 41430002 43540000 41455000   1A444A40 B48095FF 40004770 04484284     .9.............&.  ... .... .......
 000460  000007F9 44000FAA 95C0C0C8 074995FF   30020789 45700C0C 91803006 4780BA1E     ...9.......H....  ................
 000480  91043006 4710BA1E 48603000 9F006000   472004A8 4400058E 9E006000 4780B976     .........-....-.  ..........-.....
 0004A0  47100DC0 47F004BE 1B774370 30004377   C0C94937 C0E04780 049447F0 B9769106     .....0..........  .I.........0....
 0004C0  00454770 B1AC95D0 30044780 04D69570   00444780 B9769519 00230779 47F0BA1E     ..............0.  ..............0.
 0004E0  95FF05C1 07891800 5000B58C 95FF05C1   4780B976 486002BE 956002BF 478003DE     ...A....&......A  .....-....-.....
 000500  D502A005 03094770 05184111 00004910   B28447B0 05181B66 4121000F 4570B208     N...............  ................
 000520  D5021009 02C147B0 00C64400 06085870   031CD502 700102C1 478000C6 1B334330     N....A...F......  ..N....A...F....
 000540  10079501 10064770 041692FF 05E9D200   0557A00D 4123000B D5001007 A00E47B0     ..............7K.  .........N......
 000560  00CA4182 20004870 02DC4338 70004930   B27C47B0 04308930 00034A30 02D09519     ................  .@..............
 000580  00234780 0464951B 00234780 0464D403   1002C0DC 91F03004 4780BD54 D5018478     ..............M.  .....0.......N..
 0005A0  B4864720 05BE4930 B4A04770 05BE950F   00234780 05BE9110 30064780 B9764180     ................  ................
 0005C0  00014148 80001A44 4A40B480 18584A50   02FCD200 05C14000 50104000 92FF4000     ......... ......&  ..K..A .&. ... .
 0005E0  42205000 4260500A 92035014 91F03004   4780BD74 47F005FC 5880B5A4 44000FAA     ..&..-&...&..0..  .....0..........
                                                                                                                           } 8
```

Figure 6.3 (part 1 of 2)

```
001380  00000000 00000000 00510000 00000000  19000000 03E80000 00000000 00000000  ................  .....Y..........
0013A0  00790000 00000000 13000000 03E80000  00C00000 00000000 00500000 00000000  .............Y..  .........&.......
0013C0  19000000 00000000 00000000 00000000  00510000 00000000 19000000 03E80000  ................  .............Y..
0013E0  00000000 00000000 00790000 00C00000  13C00000 03E80000 00000000 00000000  ................  .....Y..........
001400  00500000 00000000 19000000 00000000  00000000 00000000 00510000 00000000  .&..............  ................
001420  19000000 03E80000 00000000 00000000  0079C000 00000000 13000000 03E80000  .....Y..........  .............Y..
001440  5B5BC2C1 E3E3D5C1 00008A00 01000000  00001318 FF006200 00000000 06000002  $$BATTNA........  ................
001460  C6C7D757 00000A01 104012E8 0018185C  06501200 0005F276 14981108 10E610F4  FGP.....  .Y...*  .&....2......W.4
001480  215C1A04 14F01482 00001A08 1A1A0186  5B5BC1D5 C5D9D940 00001340 0E000005  .*...0..........  $$ANERR ... ....
0014A0  21F20400 00200040 00000005 00134190  0C0547E0 F2841B00 47F0F2CE 1B07185A  .2.....  .......  ....2....02.....
0014C0  1B581B05 185C1B59 1B581288 4770F2CE  186847F0 F2D8185C 1B591B58 41635000  .....*........2.  ...02Q.*......&.
0014E0  120047A0 F2E69260 F3C647F0 F2EA924E  F3C64170 00631907 4720F290 11771907  ....2W.-3F.02...  3F........2.....
001500  4740F290 4E00000D 00080000 00000000  0CC0C000 FF000000 00FF0000 01008484  .  2.............  ................
001520  80808083 85605040 30201000 00000000  00000000 00000000 00000000 00000000  .....-&  .......  ................
001540  00000000 --SAME-- ←10                                                      ....
001560  00000000 800047F0 00040007 40001814  00000000 00002080 00001000 00002000  ........0....  ...  ................
001580  00003000 90001806 00001358 00002608  000022D8 0000233F 00030000 000022D8  ................  ...Q...........Q
0015A0  00680000 00000001 00005000 00002185  00000000 41990001 FF050007 400028BE  ..........&.....  ...........  ...
0015C0  00002CE0 00002080 00000290 00000000  8C002704 90002786 00002608 00000007  ................  ................
0015E0  000029C0 00000024 00002690 00000008  0C0015C0 00002622 00000004 00000412  ................  ................
001600  00004208 00010C0D 90ECD00C 58B0F138  6000B0A0 50D0B054 41D0B050 9200B0CE  ..............1.  -...&......&....
001620  1B552B00 78010000 486002BE 4570014E  9287A000 95000093 4780B9A6 94BFA001  .........-......  ................
001640  9202B489 926002BF 4260B859 41201007  4570B208 5040B878 4890B34E 95401000  .....-...-......  ....&  .......  ..
001660  478000C0 D2079000 10001B44 D5039000  03004780 B6AED501 00309000 4780B6B2  ....K........N...  .......N.........
001680  955B9000 4780B6AA D5029000 84604780  B6A69510 B85947D0 B6A25840 B46447F0  .$.......N....-..  ...........  ...0
0016A0  B6B64144 01004144 01004144 01004144  01004144 05015040 B45CD207 B330B340  ................  .......&  .*K....
0016C0  4580B7E2 18E94180 9168955C E00841F0  01864780 B6EED507 9000E008 4780B6FC  ...S.Z......*...0  .......N.........
0016E0  41E0E014 15E84740 B6CA47F0 B6C0D503  B878B87C 477000C0 47F0B70E D503B878  .....Y.  ...0..N.  ...@.....0..N...
001700  B87C4770 B71E1840 D2024001 E0109200  B4899120 A002071F 9283A000 07FF5880  .@.....  K.  .....  ................
001720  E0148880 00085870 E0108870 00081200  4780B73E 18101B87 1A0847F0 B7421808  ..............  ..........0.....
001740  1817D202 B45DE017 D200B45C B45D9200  B45DD201 B336B2FE 1B994390 E013D201  ..K.....K..*....  ..K...........K.
001760  B2FCE01A 4880B2FE 4690B774 4880B2FC  4080B336 18214570 B2044880 B3360620  ................  ................
001780  1A284570 B2045010 B3309286 B3304580  B7E25810 B3304110 10004A10 B3361299  ......&.........  .S..............
0017A0  4720B764 58E00284 9500B859 4780B7CA  4190C02C 4A90B858 48990000 06104919  ................  ................
0017C0  00084740 B7CA5019 00245890 A0045840  B8789200 B4899120 A0020714 9283A000  ... ..&.........  ................
0017E0  07F45080 027445E0 B1E89190 F0064710  B7FA9180 F0064710 B1EC95FF 05C14780  .4&......Y..0...  ....0........A..
001800  B7FA45E0 B85C41F0 B35892F0 05A30A00  922005A3 9180B35A 4710B81E 0A0748F0  .....*.0...0....  ..............0
001820  C0D895FF F0024770 B82E45E0 B85C5880  02749203 00939120 B35B4780 B8504370  .Q..0........*..  ..........$...&..
001840  B45C4177 00014270 0305D201 0307B2BE  D204B458 03044160 000007F8 80000058  .*.........K.....  K..$...-...8....
001860  48F0C0D8 D704F002 B454D704 B454F002  4400B864 07FE0000 80001922 00000000  .0.QP.0...P...0.  ................
001880  4570014E 1B004540 B6285860 902C1266  4780B896 1806D500 B85902FB 4770B8BC  .......  ...-....  .......N.........
0018A0  5860B544 12664780 B8BC5860 B5485006  0004D300 6001B859 47F00186 5000900C  .-.........-..&.  ..L.-.....0...&...
0018C0  D3009009 B85947F0 01864400 05004780  B8E89500 00934780 B62C9500 02FF4770  L.......0........  .Y..............
0018E0  B968D200 B93302BF 95000093 4780B62C  457C014E 48F0C0BE 90F1B5D8 180F41FF  ..K.............  .....0...1.Q....
001900  000850F0 B5BC1B66 41110000 551002C0  47B000C6 D5021000 00304770 00BE4540  ..&0............  ...FN..........
001920  B62C9140 A0014710 01829500 02FF4770  01869210 02FF47F0 B94E4400 05004770  ... ............  ........0........
001940  00BE9680 A0009200 02FF92FF B5B89703  008D4170 0186D702 C0B9A005 D702A005  ................  .......P.....P...
001960  C0B94400 B95607F7 D50002BF 02FF4780  008E94FD A0005880 00249140 00244710  .......7N.......  ...........  ....
001980  B9860680 06800680 06805080 00249502  B4894770 01829180 A0004780 01825080  ..........&.....  ..............&.
0019A0  B56C47F0 01829140 A0014710 0186D501  A004B9D4 47800186 58800024 91400024  ...0...  ......N.  ...M.........  ..
0019C0  4710B9C8 06800680 06800680 5890A004  5080900C 47F00186 91010021 471000BE  ...H............  &.....0.........
0019E0  92030093 9501B497 4720BA34 9284C0D0  078F92D9 B4964190 01864160 B498940F  ................  ...R........-....
001A00  B11507FF 92000133 58A0025C 458C00EA  41A0C0D0 92800133 07F99601 C0D0D201  ...........*....  .........9....K.
001A20  003A3000 4580B13A 47F00B06 92F1B497  4570014E 4110B490 4800B34E 1B664540  .........0...1..  ................
```

Figure 6.3 (part 2 of 2)

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    DOS/VS ASSEMBLER V 28.0 15.52 73-05-31

000000                             1 START    START 0
000000 0520                        2          BALR  2,0
                              00002    3          USING *,2
000002 5850 2026              00028    4          L     5,CONST
000006 45E0 208A              0008C    5 AGAIN    BAL   14,READ          READ A CARD
00000A 1888                        6          SR    8,8           ZERO REGISTER 8
00000C 4188 0001              00001    7 LOOP1    LA    8,1(8)          ADD 1 TO REGISTER 8
000010 1958                        8 CK       CR    5,8       COUNT EQUALS 4096
000012 4740 200A              0000C    9          BC    4,LOOP1
000016 5880 2032              00034   10 SETUP    L     8,IN          LOCATE I/O AREA ADDRESS
00001A D207 0050 202A 00050   0002C   11          MVC   80(8,0),LABEL         MOVE PROCESS TO I/O AREA OF PRINT
000020 45E0 20BE              000C0   12          BAL   14,PRINT          PRINT A LINE
000024 47F0 2004              00006   13          BC    15,AGAIN          GO TO READ ANOTHER CARD
000028 00001000                       14 CONST    DC    F'4096'
00002C D7D9D6C3C5E2E240               15 LABEL    DC    CL8'PROCESS'
000034 4040404040404040               16 IN       DC    CL88' '    I/O AREA FOR BOTH THE READER AND PRINTER
                                      17 ERROR    DC    CL5'
        *** ERROR ***
                                      18 ************   DO NOT ALTER ANY OF THE FOLLOWING INSTRUCTIONS    *****  ********
                                      19 READ     EXCP  RD
                                      20** SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                    15050028
00008C 5810 20EE              000F0   21+READ     L     1,=A(RD)                                                35000025
000090 0A00                           22+         SVC   0                                                 EM 55010028
                                      23          WAIT  RD
                                      24** SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                           12000028
000092 5810 20EE              000F0   25+         L     1,=A(RD)                                                30000025
000096 9180 1002        00002         26+         TM    2(1),X'80'                                              54000025
00009A 4710 209E        000A0         27+         BO    *+6                                                     57000025
00009E 0A07                           28+         SVC   7                                                       60000025
0000A0 9101 20AA        000AC         29          TM    RD+4,X'01'
0000A4 078E                           30          BCR   8,14
                                      31          EOJ
                                      32** SUPVR COMMN MACROS - EOJ - 5745-SC-SUP - REL. 28.0                   40000028
0000A6 0A0E                           33+         SVC   14                                                      50000025
                                      34 RD       CCB   SYSIPT,RDCCW
                                      35** SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0                   07100028
0000A8 0000                           36+RD       DC    XL2'0'  .          RESIDUAL COUNT                     49000028
0000AA 0000                           37+         DC    XL2'0'     .       COMMUNICATIONS BYTES               50000028
0000AC 0000                           38+         DC    XL2'0'  .          CSW STATUS BYTES                   51000028
0000AE 00                             39+         DC    AL1(0)     .       LOGICAL UNIT CLASS                 52000028
0000AF 01                             40+         DC    AL1(1)     .       LOGICAL UNIT                       53000028
0000B0 00                             41+         DC    XL1'0'                                                54000028
0000B1 0000B8                         42+         DC    AL3(RDCCW)  .      CCW ADDRESS                        55000028
0000B4 00                             43+         DC    B'00000000'     .     STATUS BYTE                    56000028
0000B5 000000                         44+         DC    AL3(0) .           CSW CCW ADDRESS                    57000028
0000B8 0200003420000050               45 RDCCW    CCW   2,IN,X'20',80
                                      46 PRINT    EXCP  PRINT1
                                      47** SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                   15050028
0000C0 5810 20F2              000F4   48+PRINT    L     1,=A(PRINT1)                                            35000025
0000C4 0A00                           49+         SVC   0                                                 EM 55010028
                                      50          WAIT  PRINT1
```

Figure 6.4 (Part 1 of 11)

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    DOS/VS ASSEMBLER V 28.0 15.52 73-05-31

                                    51+* SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                          12000028
0000C6 5810 20F2            000F4   52+          L     1,=A(PRINT1)                                          30000025
0000CA 9180 1002      00002         53+          TM    2(1),X'80'                                            54000025
0000CE 4710 20D2      000D4         54+          BO    *+6                                                   57000025
0000D2 0A07                         55+          SVC   7                                                     60000025
0000D4 07FE                         56           BCR   15,14
                                    57 PRINT1    CCB   SYS002,PRINTCCW
                                    58+* SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0                   07100028
0000D6 0000                         59+PRINT1    DC    XL2'0' .            RESIDUAL COUNT                    49000028
0000D8 0000                         60+          DC    XL2'0'      .         COMMUNICATIONS BYTES            50000028
0000DA 0000                         61+          DC    XL2'0' .            CSW STATUS BYTES                  51000028
0000DC 01                           62+          DC    AL1(1)      .           LOGICAL UNIT CLASS            52000028
0000DD 02                           63+          DC    AL1(2)    .           LOGICAL UNIT                    53000028
0000DE 00                           64+          DC    XL1'0'                                                54000028
0000DF 0000E8                       65+          DC    AL3(PRINTCCW) .     CCW ADDRESS                       55000028
0000E2 00                           66+          DC    B'00000000'     .       STATUS BYTE                   56000028
0000E3 000000                       67+          DC    AL3(0) .            CSW CCW ADDRESS                   57000028
0000E6 0000
0000E8 0900003420000058             68 PRINTCCW  CCW   9,IN,X'20',88
                                    69           END

0000F0 000000A8                     70                 =A(RD)
0000F4 00000006                     71                 =A(PRINT1)
```


Figure 6.4 (part 2 of 11)

```
12/16/71    PHASE   XFR-AD  LOCORE  HICORE  DSK-AD   ESD TYPE  LABEL     LOADED  REL-FR
            LPTWO   0036A8  0036A8  C0379F  1F 04 2  CSECT     START     0036A8  0036A8   RELOCATABLE
```

3

Figure 6.4 (part 3 of 11)

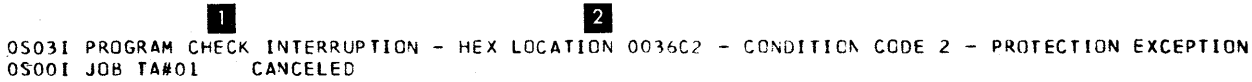


Figure 6.4 (part 4 of 11)

```
      TA#01              12/16/71                                                   10.31.52                PAGE   1

GR 0-7   000036A8 00003750 500036AA 00003000   00007FDC 00001000 000036A8 00002CF0
GR 8-F   000036DC 0A0407F1 00003010 00003010   0C003FD0 00004FD0 9C0036B2 00000023
FP REG   C1107A57 00000000 C1107A57 00000000   F9F9F9F9 F9F9F9F9 F9F9F9F9 F9F9F9F9
CR  0-F  004000E0 00006C30 FFFFFFFF 00000000   00000000 00000000 00000000 00000000
         0000FFFF 00000000 00000000 00000000   00000000 00000000 00000000 00000200
COMREG   BG ADDR IS 000290

                           5        6        7
000000   00000000 00000000 00000000 00000000   00000000 00000290 FF050000 00000000   ................   ................
000020   FF050007 400028BE FF150004 E00036C8   5B5BC2C5 D6D1F340 FF05000E 800011F0   .... ..........H   $$BEOJ3 .......0
000040   000029E0 08000000 000029D0 00000000   FE67FD00 01ABF620 00040000 0F001C00   ................   ......6.........
000060   00040000 0000037E 0004C000 00001BC0   00000000 00000DB4 00040000 00000324   ................   ................
000080   00000000 00000000 00000000 00000003   00050003 06B006B0 06B041BB 00734570   ................   ................
0000A0   0146940F BBC141A0 C0804570 0D7E18A8   419C0186 4180BA24 47F000DA 06B006B0   .....A..........   .........O......
0000C0   06B006B0 06B006B0 06B041BB 001741BB   00504570 01464180 01869640 A0019120   ................   .&......... ....
0000E0   A00C4710 00EA9260 A00195E2 A0024780   B0BC95C1 A0024780 B0BC9561 A0024780   .......-...S....   ...A......./....
000100   010E9104 A0004780 010E9203 008F9281   AC004BA0 02EA487A C02C49A0 02FE41AA   ................   ................
000120   C0700778 94F9703B D7017058 70589283   A0009680 A0014400 05000788 947FA001   .....9..P.......   ................
000140   4570B956 07F842B0 00E758B0 02789180   A0000717 5890A004 488001F8 5000902C   .....8...X......   ............8&...
000160   60009058 60209060 60409068 60609070   D21B9010 0258D207 90088000 9680A000   -...-..-- ..--..   K.....K.........
000180   07F74570 014ED205 B51EB525 DC05B51E   C0701BAA DD06B51E 000C43A1 000742A0   .7....K.........   ................
0001A0   02BF41AA C0704400 A0045890 A0044220   A0009140 A0014710 020CD207 02589008   ................   ... ......K.....
0001C0   68009058 68209060 68409068 68609070   4BA002EA 41AAC02C D2010016 A0009898   .......-. ...-..   .........K......
0001E0   90108200 02584400 A0045890 A0049818   9030989F 02588200 00389284 C0D0D207   ................   ..............K.
000200   0258B568 9890B570 82000258 1B445940   B50C4780 02384BA0 02EA488A C02C4AA0   ..............     ................
000220   02EA9140 80864780 0238D707 B50CB50C   94BF8086 830003CC 9680A000 41100030   ... ......P.....   ................
000240   47F0B8CA 96030039 96010038 82000038   615C44F0 4110C010 FF050007 400028BE   .0..............   /*.0........ ...
000260   00001000 00002000 00003000 00004000   00002608 80001792 00001000 00002000   ............. .   ................
000280   00003000 00004000 20FAD004 98ECD00C   F1F261F1 F661F7F1 2D583000 00000000   ...... .........   12/16/71........
0002A0   00000000 00000000 E3C17BF0 F1404040   0C007FFF 0000379F 0000379F 00000010   ........TA.01      ................
0002C0   0000FFFF F87C4680 A8A04EC0 00B921A3   21AA2243 224422BE 23402344 234838F1   ....8@..........   ......... .....1
0002E0   F2F1F6F7 F1F3F5F0 00002070 0000000A   1350147A 1524153C 15440010 21840010   21671350........   .&..............
000300   5B5BC2D6 00060000 020015B0 202C0000   00000000 02900000 C0000000 000029D0   $$BO............   ................
000320   00002564 923801F9 909F0258 98BE0278   419009A8 48A002BE 4AA002EA 9180A000   .......9........   ................
000340   47100352 58B0A004 9018B030 98BE0278   07F99601 A00098BE 027895FF A00F0789   ................   .9..............
000360   5000B58C 48E001F8 D207B568 E00058E0   028494FD B569D21B B5700258 07F9909F   &......8K.......   ......K.......9..
000380   02589220 01F94590 03344190 01E69500   00234780 04EC95E1 00234740 03C64880   .....9.......W..   ........... .F..
0003A0   00169140 80864780 03C61B44 5940B50C   478003C6 5840B50C D2074000 0020D202   ... .....F... ..   ...F. ..K. ...K.
0003C0   0025B511 07F99530 002347B0 00BE4860   00221A66 48700288 48667000 07F6181F   .....9.........-   ..............6..
0003E0   1B664121 000F4570 B2084860 B4881B22   43201007 4130001F 1B234740 04084130   ...........-....   ........... ....
000400   00101B23 47B0040A 1A234220 05E94320   100747F0 05624720 00CA4230 05E94820   ..............Z..  ...0.........Z..
000420   02BE4322 C02F1A23 950B1007 47F0055E   472000C8 4400058E 96801002 960C1004   ..............0..  ...H............
000440   07F91858 41430002 43540000 41455000   1A444A40 B48095FF 40004770 04484284   .9............&.   ... .... ......
000460   000007F9 44000FAA 95C0C0C8 074995FF   30020789 45700C0C 91803006 4780BA1E   ...9........H....  ................
000480   91043006 4710BA1E 48603000 9F006000   472004A8 4400058E 9E006000 4780B976   .........-....-.   ...........-.....
0004A0   47100DC0 47F004BE 1B774370 30004377   C0C94937 C0E04780 049447F0 B9769106   .....0..........   .I.........0....
0004C0   00454770 B1AC95D0 30044780 04D69570   00444780 B9769519 00230779 47F0BA1E   .............0..   .............0..
0004E0   95FF05C1 07891B00 5000B58C 95FF05C1   4780B976 486002BE 956002BF 478003DE   ...A....&......A   .....-...-......
000500   D502A005 03094770 05184111 00004910   B28447B0 05181B66 4121000F 4570B208   N...............   ................
000520   D5021009 02C147B0 00C64400 06085870   031CD502 700102C1 47B000C6 1B334330   N....A...F......   ..N....A...F....
000540   10079501 10064770 041692FF 05E9D200   0557A00D 4123000B D5001007 A00E47B0   .............ZK.   ........N.......
000560   00CA4182 20004870 02DC4338 70004930   B27C47B0 04308930 00034A30 02D09519   ................   .@..............
000580   00234780 0464951B 00234780 0464D403   1002C0DC 91F03004 4780BD54 D501B478   ..............M.   ......0......N...
0005A0   B4864720 05BE4930 B4A04770 05BE950F   00234780 05BE9110 30064780 B9764180   ................   ................
0005C0   00014148 80001A44 4A40B480 18584A50   02FCD200 05C14000 50104000 92FF4000   ......... .....&   ..K..A .&.
0005E0   42205000 4260500A 92035014 91F03004   4780BD74 47F005FC 5880B5A4 44000FAA   ..&..-&...&..0..   .....0
```

Figure 6.4 (part 5 of 11)

```
000600  9560C0C8 47700676 D202031D 10095860  031C9507 60004770 0676D202 031D6001  .-.H....K.......-  ....-.....K...-.
000620  5870031C 1B444340 30054C40 B4745A40  03204144 0000D503 7C014000 47800676  ........ ..< ...  ......N... .....
000640  9120100C 47100670 91051002 47700670  91406004 47800670 94BF6004 91101002  ................  . -.......-.....
000660  47800668 96401002 96141002 9601100C  D2034000 700195FF 30024770 04424280  ..... ..........  K. ............
000680  30029198 30060779 43203000 4322C0C9  48603000 95003000 47800684 95C03004  ................I  .-.............
0006A0  477006AE 9F006000 072947F0 06B49F00  6CC00769 40600704 95503004 4780092E  ......-....0....  -... -...&.....
0006C0  95045014 4780097C 9101100C 471006F2  940F0821 91F0500A 478006F2 D300C0C8  ..&....a.......2  .....0&....2L..H
0006E0  30049503 501447D0 07569560 C0C84780  079ED202 00491009 940F0825 D3000048  ....&.......-.H..  ..K.........L...
000700  500A9C00 000E4770 07144032 C0E09680  300607F9 47300DBE 91060045 477081AC  &.......... .....  ...9..........
000720  913F0045 4770072E 91AF0044 0789D201  003A0704 95503004 47700742 D2020049  ..............K.  .....&......K...
000740  10095860 00484A60 B32C5060 00404032  C0E047F0 09D69501 50144720 077E9560  ...-...-..&-. .  ...0.0..&.....-
000760  C0C84770 07764570 0D7E9120 800F4710  009447F0 077E9120 30064710 00949560  .H..............  ...0...........-
000780  C0C84770 06F24570 0D7E4B80 02EA4878  C02C9140 70384710 06F296F0 08219500  .H...2.........  ... .....2.0....
0007A0  30034770 06F296F0 BBC14570 0D7E9180  800C4710 07F61B44 43400704 4C40B46C  .....2.0.A......  .....6... ..< ..
0007C0  4A40B46A D2020049 10095860 00484870  B3144070 400A5040 00489506 50144770  . ..K.......-....  .. . .& ....&...
0007E0  07EE4870 B3164070 400A96F0 08259140  60044710 07FE940F BBC147F0 06F29507  ...... . ..0...  -.........A.0.2..
000800  60004770 009AD207 40006000 95086008  477C0866 58706008 50740010 92084010  -.....K. .-...-.  .......-.&..... .
000820  47000892 47000926 58760000 1B664187  00034360 50008960 00014A60 02DC95FF  ................  ...-&...-...-....
000840  60014780 00984540 087AD500 80007000  47400098 D5008000 700147D0 09264540  -...... ..N.....  . ..N...........
000860  086E47F0 084A4170 600847F0 081895FF  70034780 00984167 00021B77 43760001  ...0....-..0....  ................
000880  89700002 4A7002D4 91307002 47A0086E  07F44B80 02EA4878 C02C4160 08CC4877  .......M........  .4..........-....
0008A0  00609502 50144780 08C24720 08BE4188  C0709120 800F4710 009447F0 08C64177  .-..&....B......  ............0.F..
0008C0  00184177 00184187 C01807F6 D5068C00  800A4720 0098D202 00491009 58600048  ..........6N....  ......K.......-..
0008E0  58760008 D204B46E 70009502 50144740  091A4340 B4724144 00014240 B472D504  ....K........&..  ... ........ ..N.
000900  B46E8002 47700098 58760018 D5078002  70004770 009847F0 09264400 08FE4770  ............N...  ........0........
000920  009847F0 07F6940F BBC147F0 06F89501  50144720 093E9120 30064710 0094D200  ...0.6...A.0.8..  &..............K.
000940  B2A03005 D2030048 10085870 00489101  30064710 096C1B88 43803003 4C80B2B6  ....K...........  ............<...
000960  4A8002D6 95008000 477006FC 95047000  4170B2A0 4780099E 47F0099A 9105500A  ...0............  .........0....&.
000980  477006F2 91011000 471006F2 45700D7E  D201B29D 80024170 B2905070 0048D202  ...2.......2....  K.........&...K.
0009A0  70091009 47F006FC 419001E6 91060045  4770B1B2 94FD0039 417009D6 1B224320  .....0.....W....  ...........0....
0009C0  003A4322 C0C94832 C0E0D500 3001003B  078747F0 0D1E4570 0C0C91FF 30024710  ......I....N....  ...C............
0009E0  0A349140 100C4780 0A344570 0D7E9140  800C47E0 0A349101 100C4710 0A34D202  ... ............  ..............K.
000A00  0049100D 58700048 41770000 597002C0  47D00A2C 95008001 47700182 4080004A  ................  ............ ...
000A20  4570014E 48A0004A 47F000C6 18870578  47F00ADE D5010044 B2864780 0C26D501  ..........C.F....  .0..N.........N.
000A40  00448288 47800C26 91020044 47800A60  91803006 47100E0C 95FF3002 47700E0C  ................-  ................
000A60  91390045 47700E00 416C0A8E 91800044  07869604 0044910A 02C90776 95003004  .........-......  .........I......
000A80  07769610 C0B89603 C0B04190 01829110  00444710 0ADE9500 00444770 0AC09180  ................  ................
000AA0  00450789 45700D7E 198A47D0 0AB24190  01829601 800095C0 30044780 0BE407F9  ................  ............U.9
000AC0  D6020041 00414770 0C2695D1 30044770  0ADE9570 00444770 0ADE47F0 0AF49104  0..........J....  ...........0.4..
000AE0  00444770 0AF49550 00444770 0BE49477  300607F9 94773006 91043006 47800BC6  .....4.&.....U..  ...9...........F
000B00  D6011004 00449473 30069180 100C4710  0B269550 30044780 0D689551 30044780  0..............  ...&............
000B20  0D689200 30039680 10029101 100C4710  0B484570 0D7E198A 47D00B40 41900182  ................  ........... ....
000B40  96018000 47F00B86 94FE100C 91F03004  477C0B62 4370B5A8 06704270 B5A847F0  .....0........0..  ..............0
000B60  0B86944B 10024400 06085860 031C9640  60049140 10024780 0B7E9610 100294BF  ..........-...  -.. ............
000B80  100247F0 0C0892FF 500A4370 3002D200  30024000 D2004000 05C14270 05C19110  ...0....&.....K.  .. .K. ..A...A..
000BA0  30064780 0BC64870 B4864930 70084770  0BB69602 700A4B70 C0DA4970 B4784740  .....F..........  ..............
000BC0  0BC647F0 0BAA9500 30004770 0BE495FF  30024780 0BDE9198 30064780 0C0895C0  .F.0.........U..  ................
000BE0  30040779 4832C0E0 D2C00BF5 003A0570  41330008 95013000 47200D4A 95FF3002  ........K..5....  ................
000C00  07879198 30060777 41700690 1B554350  30024145 50001A44 4A40B480 4A5002FC  ..............&  ....&.... ...&..
000C20  58104000 07F7D201 10000046 91441C0C  477C0C3A D202100D 0041D601 10040044  .. ..7K.........  ....K.....D.....
000C40  95035014 47200CAA D300C0C8 30049560  C0C84770 0CAA9101 100C4710 0CAA4570  ..&.....L..H...-  .H..............
000C60  0D7E4B80 02EA4878 C02C9140 70384710  0CAA4560 089E4160 8006D500 80068010  .......... ....  ...-...-..N.....
000C80  47700C9E 92018006 0660D500 80058011  47700C9E D2008C05 80124160 80034370  .........-N.....  ....K......-....
000CA0  60004170 70014270 600C9501 50144720  0CFC5870 00404B70 B32CD502 700102C1  -........-...&...  ..... ....N....A
```


Figure 6.4 (part 6 of 11)

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000CC0  47200CFC 58770000 D5017000 02504780   0CF4D501 7000C0C2 47700CFC 9560C0C8   ........N....&..  .4N....B......-.H
000CE0  47700CF0 45700D7E 9620800F 47F00CF4   96203006 96401002 96011004 91270044   ...0.........0.4  ..... .........
000D00  47700B06 96803006 91041002 47800B0A   96043006 95003000 47700BE4 07F9D200   ................  ............U.9K.
000D20  0D37003B D2000D41 003A4832 C0E295FF   3C000789 0560951F 30010787 41330008   ....K........S..  .....-.........
000D40  95003000 07D647F0 0BE44842 C0E04832   C0E24570 0D5E4133 00081934 072995FF   .....0.0.U......  .S.............
000D60  30020787 47F00C02 1B774370 30034C70   B2B64A70 02D69200 7C0047F0 0B264880   .....0........<.  .....0.....0....
000D80  02FE91F0 500A4780 0D944380 500A4188   C07007F7 9180100C 47100DA4 910F500A   ...0&........&...  ...7..........&.
000DA0  47800D8E 41800060 47F00D8E 07000700   00E201E2 D2010000 0DB08200 0DB00729   .......-.0......  .S.SK..........
000DC0  D2010044 0252D202 0041B329 9560C0C8   47700E00 9101100C 47800E00 44000608   K.....K.......-.H  ..............
000DE0  5880031C 95078000 477C0E00 944B1002   91401002 47800DFC 96101002 94BF1002   ................  . .............
000E00  92040EDF 91090045 47800E9E 92040EDF   95FF3002 47800E22 58800040 12884770   ................  ........... ....
000E20  0FE69212 0EDF9104 30064780 0EAE94FD   0EDF9120 100C4710 0E9E9180 100C4780   .W..............  ...............
000E40  0E969550 30044770 0E969610 B16F4181   00104870 B34E4978 00024740 0E664A78   ...&............  ........... ....
000E60  00024078 00024020 0E92D201 0E940044   4570B14A 47F00E8A D2010044 0E9494EF   .. ... ...K.....  .....0..K.......
000E80  B16F4820 0E9247F0 0FDE9620 100C47F0   0E7E0000 00009101 10024710 0FDE95FF   .......0........0  ...............
000EA0  30024780 0EAE9110 100C4710 0FDE4860   B4864960 B48447B0 0FCA4A60 C0DA4060   ................-  ...-........-.. -
000EC0  B486D715 60006000 D2076000 00404030   600895FF 30024770 0EDE9602 0EDF9204   ..P.-.-.K.-..  .  -...............
000EE0  600A9690 30064186 000C4080 B2B24140   B0409102 00444710 0F009130 00450774   -.........  ....  .  ..............
000F00  91020EDF 4780B000 95D23004 47800FAA   95D13004 47800FAA 95D33004 47800FAA   .........K......  .J........L.....
000F20  4180B2B0 4570B14A 47F0B01C 95503004   47700FAA 91400316 47800F44 9510500A   .........0...&..  ..... .........&.
000F40  47800F6C 4870C04C 91407086 47800F58   9520500A 47800F6C 4870C05C 91407086   .......<.  ......  ..&.........*.  ..
000F60  47800FAA 9530500A 47700FAA 9108100C   07849108 600C0784 4880B486 58880000   ......&.........  ....-...........
000F80  41880000 4B80B508 D201B282 80065880   B280D201 B2821000 5B80B280 4980B506   ........K.......  ..K.....$.......
000FA0  07449620 100247F0 B0E6D300 C0C83004   9540C0C8 4780B0C8 95603004 4780BEA0   ........0.WL..H..  . .H...H.-.....
000FC0  95623004 4780BEA0 07F49102 0EDF4710   0A689130 500A4780 B0B247F0 00969620   .........4......  ....&.......0....
000FE0  100247F0 0A689101 10034780 0E324B80   B32C5080 0048D202 10090049 47F00E32   ...0............  ..&...K.......0..
001000  9120100C 47800F08 41810010 4570B14A   47F0B01C 96201002 47F080E6 940E0044   ................  .0........0.W....
001020  95060044 4780B14A 9220600B 4180B2B0   50800048 9C002000 9D002000 4720B038   ..........-.....  &..............
001040  4580B13A 9102600A 4710B09C 95028489   4770B064 9502500A 4770B064 9520600D   ......-........  .......&........-.
001060  4770B0A8 95FF02C9 4780B0A8 9560C0C8   4770B09C 9101100C 4780B09C 9101600C   .......I......-.H  ..............-.
001080  4710B0E6 91300045 4780B09C 94FE100C   440C0608 5860031C 96406004 41900182   ...W............  .....-... -.....
0010A0  9287C0C0 47F00BC6 D2050005 600C9706   B0BD9701 B0BDD201 00023000 92040000   .....0.FK...-...  .......K........
0010C0  92E60001 82000DB0 95413004 4770B0D4   94F3600C 9501600C 07749102 0EDF4710   .W..............M  .3-...-.........
0010E0  B0E69602 1003D207 00406000 4580B114   47F00A68 4400B0E6 4570B152 47F0B100   .W....K.. -.....  .0.....W.....0..
001100  4580B114 47F009DA 9104600A 4780B0E6   41800BC6 47F0B12A 96F0B115 4830B4A0   .....0....-....W  ...F.0...0......
001120  D257B498 B4AE4400 BA1E4870 B4864B70   C0DA4070 B486946F 30061B22 4320003A   K...............  .. ............
001140  4322C0C9 45700C0C 07F81828 4320028E   09225080 00484220 00484820 003A9C00   ...I.....8......  ..&.............
001160  20004740 B1749D00 20004720 B16607C7   4710B028 91060045 4770B1AE 91390045   ... ............  ...............
001180  07779102 00440717 91080044 47170004   95D13004 4740B1A8 95D43004 4720B1A8   ................  .J... ...M......
0011A0  95400044 47870004 47F0B15E 18264020   003AD201 00000DB2 920F0073 82000DB0   . .......0.... .  ..K.............
0011C0  D501B478 B4864720 B1E092C4 B49748F0   B4A09550 F0044780 B1DE92C1 B4970A03   N..........D...0  ...&0.......A....
0011E0  9284C0C0 47F00186 48F0C0D8 8000B27D   9118F006 077E95FF F0024770 B1F007FE   .....0...C.Q....  ..0.....0....0..
001200  4860028E 41220000 592002C0 472000C6   12660787 41110000 591002C0 472000C6   .-.............F  ...............F
001220  49108284 474000C6 1B881851 4350C0DE   09851968 477000C6 18524350 C0DE0985   ..... .F.....&..  .......F...&....
001240  19684770 00C607F7 9510A001 47B001AE   92E9B497 9110A008 4710BA34 4700BC48   .....F.7........  .Z.............
001260  4110B440 9283A000 9103A008 4770B8CA   9280A000 9200A008 47F00186 00FE0000   ... ............  .........0......
001280  00000000 2D580C00 080C0000 00000000   0100129D 60000003 080028A8 60C2C740   ................  ....-........-BG
0012A0  930012A0 60000001 080012A8 60000C01   040014A4 20000006 13001448 20000001   ....-.......-...  ..............
0012C0  1A001448 20000005 16001450 20000004   0700144E 40000006 39001450 60000004   ..........&.....  .... ......&-...
0012E0  080012D8 00000000 1F0012ED 60000001   1A001448 50000005 080012F8 03D80698   ...Q.........-...  ....&.......8.Q..
001300  070038C9 60000006 1F001468 40000001   080038B0 14681469 07001459 40000006   ...I-.......  ...  ..............  ...
001320  31001458 40000005 08001320 0008000A   86002608 600003D8 92000304 20000005   ...$ ...........  ....-..Q........
001340  86002AC0 60000168 00CC0000 13582AB8   00000000 00000000 00008000 0C000006   ....-...........  ...............
001360  00001318 00001340 00000000 00000000   00500000 00000000 19000000 00000000   ....... ........  .&..............
```

Figure 6.4 (part 7 of 11)

```
001380  00000000 00000000 00510000 00000000   19000000 03E80000 00000000 00000000   ................  .....Y..........
0013A0  00790000 00000000 13000000 03E80C00   0CCCCCC0 00000000 00500000 00000000   ............Y...  .........&......
0013C0  19000000 00000000 00000000 00000000   00510000 00000000 19000000 03E80000   ................  ............Y...
0013E0  00000000 00000000 00790000 00000000   13CCC000 03E80000 00000000 00000000   ................  .....Y..........
001400  00500000 00000000 19000000 00000000   00000000 00000000 00510000 00000000   .&..............  ................
001420  19000000 03E80000 00000000 00000000   00790000 00000000 13000000 03E80000   .....Y..........  ............Y...
001440  585BC2C1 E3E3D5C1 0000BA00 01000000   CC001318 FF006200 00000000 06000002   $$BATTNA........  ................
001460  C6C7D757 00000A01 104C12E8 0018185C   06501200 0005F276 14981108 10E610F4   FGP.....  .Y...*  .&....2......W.4
001480  215C1A04 14F01482 00001A08 1A1A0186   585BC1D5 C5D9D940 00001340 0E000005   .*...0..........  $$ANERR ... ....
0014A0  21F20400 00200040 0000C005 00134190   000547E0 F2B41B00 47F0F2CE 1B07185A   .2.....  .......  ....2....02.....
0014C0  1B581B05 185C1B59 1B581288 4770F2CE   186847F0 F2D8185C 1B591B58 41635000   .....*.........2.  ...02Q.*......&.
0014E0  120047A0 F2E69260 F3C647F0 F2EA924E   F3C64170 00631907 4720F290 11771907   ....2W.-3F.02...  3F.........2.....
001500  4740F290 4E00000D 00080000 00000000   0CCCC000 FF000000 00FF0000 01008484   . 2.............  ................
001520  80808083 85605040 30201000 00000000   00000000 00000000 00000000 00000000   .....-&  .......  ................
001540  00000000 --SAME--                                                           ....
001560  00000000 800047F0 00040007 40001814   00CC0000 00002080 00001000 00002000   ........0....  ...  ................
001580  00003000 90001806 00001358 00002608   000022D8 0000233F 00030000 000022D8   ................  ...Q...........Q
0015A0  00680000 00000001 00005000 00002185   00000000 41990001 FF050007 400028BE   ..........&.....  ...........  ...
0015C0  00002CE0 00002080 00000290 00000000   80002704 90002786 00002608 00000007   ................  ................
0015E0  000029C0 00000024 00002690 00000008   0C0015C0 00002622 00000004 00000412   ................  ................
001600  00004208 00010C0D 90ECD00C 58B0F138   6000B0A0 50D0B054 41D0B050 9200B0CE   ..............l.  -...&.....&....
001620  1B552B00 78010000 486002BE 4570014E   9287A000 95000093 4780B9A6 94BFA001   .........-......  ................
001640  9202B489 926002BF 4260B859 41201007   4570B208 5040B878 4890B34E 95401000   .....-...-......  ....&  .......  ..
001660  478000C0 D2079000 10001B44 D5039000   03004780 B6AED501 00309000 4780B6B2   ....K........N...  ......N.........
001680  955B9000 4780B6AA D5029000 B4604780   B6A69510 B85947D0 B6A25840 B46447F0   .$......N....-..  ...........  ...0
0016A0  B6B64144 01004144 01004144 01004144   01004144 05015040 B45CD207 B330B340   ................  ......&  .*K....
0016C0  4580B7E2 18E94180 9168955C E00841F0   01864780 B6EED507 9C00E008 4780B6FC   ...S.Z.....*...0  ......N.........
0016E0  41E0E014 15E84740 B6CA47F0 B6C0D503   B878B87C 477000C0 47F0B70E D503B878   .....Y.  ...0..N.  ...@.....0..N...
001700  B87C4770 B71E1840 D2024001 E0109200   B4899120 A002071F 9283A000 07FF5880   .@.....  K.  .....  ................
001720  E0148880 00085870 E0108870 00081200   4780B73E 18101B87 1A0847F0 B7421808   ................  ...........0....
001740  1817D202 B45DE017 D200B45C B45D9200   B45DD201 B336B2FE 1B994390 E013D201   ..K.....K..*....  ..K...........K.
001760  B2FCE01A 4880B2FE 4690B774 4880B2FC   4080B336 18214570 B2044880 B3360620   ................  ................
001780  1A284570 B2045010 B3309286 B3304580   B7E25810 B3304110 10004A10 B3361299   ......&.........  .S..............
0017A0  4720B764 58E00284 9500B859 4780B7CA   4190C02C 4A90B858 48990000 06104919   ................  ................
0017C0  00084740 B7CA5019 00245890 AC045840   B8789200 B4899120 A0020714 9283A000   ... ..&.........  ................
0017E0  07F45080 027445E0 B1E89190 F0064710   B7FA9180 F0064710 B1EC95FF 05C14780   .4&.....Y..0....  ....0.........A..
001800  B7FA45E0 B85C41F0 B35892F0 05A30A00   922005A3 9180B35A 4710B81E 0A0748F0   .....*.0...0....  ...............0
001820  C0D895FF F0024770 B82E45E0 B85C5880   02749203 00939120 B35B4780 B8504370   .Q..0.........*..  .........$...&..
001840  B45C4177 00014270 0305D201 0307B2BE   D204B45B 03044160 000007F8 80000058   .*.........K.....  K..$...-...8....
001860  48F0C0D8 D704F002 B454D704 B454F002   4400B864 07FE0000 80001922 00000000   .0.QP.0...P...0.  ................
001880  4570014E 1B004540 B6285860 902C1266   4780B896 1806D500 B85902FB 4770B8BC   .......  ...-....  .....N.........
0018A0  5860B544 126647B0 B88C5860 B5485006   0004D300 60018859 47F00186 5000900C   .-.........-..&.  ..L.-....0..&...
0018C0  D3009009 B85947F0 01864400 05004780   B8E89500 00934780 B62C9500 02FF4770   L.......0.......  .Y.............
0018E0  B968D200 B93302BF 95000093 4780B62C   457C014E 48F0C0BE 90F1B5D8 180F41FF   ..K.............  .....C...1.Q....
001900  000850F0 B5BC1B66 4111C000 551002C0   47B000C6 D5021000 00304770 008E4540   ..&0............  ...FN..........
001920  B62C9140 A0014710 01829500 02FF4770   01869210 02FF47F0 B94E4400 05004770   ... ............  ........0.......
001940  00BE9680 A0009200 02FF92FF B5B89703   008D4170 0186D702 C089A005 D702A005   ................  ......P.....P...
001960  C0B94400 B95607F7 D500028F 02FF4780   00BE94FD A0005880 00249140 00244710   .......7N.......  ...........  ....
001980  B9860680 06800680 06805080 00249502   B4894770 01829180 A0004780 01825080   ..........&.....  ..............&.
0019A0  B56C47F0 01829140 A0014710 0186D501   A004B9D4 47800186 58800024 91400024   ...0...  ......N.  ...M.........  ..
0019C0  4710B9C8 06800680 06800680 5890A004   5080900C 47F00186 91010021 4710008E   ...H............  &....0..........
0019E0  92030093 9501B497 4720BA34 9284C0D0   078F92D9 B4964190 01864160 B498940F   ................  ...R........-....
001A00  B11507FF 92000133 58A0025C 458000EA   41A0C0D0 92800133 07F99601 C0D0D201   ..........*....  .........9....K.
001A20  003A3000 4580B13A 47F00B06 92F1B497   4570014E 4110B490 4800B34E 18664540   .........C....l..  ................
```

Figure 6.4 (part 8 of 11)

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001A40  B62C18B0 92000093 47FBC008 486002BE   45700145 44000500 4770BA5E 1B664540
001A60  B62C5000 903047F0 01865880 00244B80   B32E5080 00249560 02BF4770 BA945080
001A80  B56C9180 F0020719 9284A000 92000093   47F00186 91801002 071994FE A00047F0
001AA0  0182D203 0024B5DC 4570014E 5870B5BC   47F0BAB8 5870026C 5880C0B8 9001802C
001AC0  5800800C 5070800C 457C014E 47F0B952   48500016 D4005039 100007F9 48500016
001AE0  D6005039 100007F9 91F00021 477000BE   120047A0 BAFCD300 002102BF 9706A000
001B00  9703008F 42000020 07F991F0 00214770   00BE4570 014E1B44 44000500 4770B628
001B20  186447F0 B62C4570 BB821810 5870A004   50007030 41210003 4570B200 947F1002
001B40  13219012 B5445820 00505030 00505520   B51447D0 BB6A92F0 BC291372 1B228870
001B60  00085E70 00545070 00548830 00088820   00085E30 00541F32 50300054 07F94170
001B80  BB461831 D50002BF 02FB0787 47F000BE   91F00021 477000BE 41110000 551002C0
001BA0  47B000C6 4570B200 07F95000 B50C5010   B5108380 03CC4880 00169640 808607F9
001BC0  470007F6 909F0258 922801F9 45900334   953002BF 472000BC 950002BF 478000BC
001BE0  41408524 4570BD42 488002BE 4188C070   4570BC9C 47F000BC 47F000BC 47F000BC
001C00  921801F9 909F0258 45900334 94FD0019   91400018 4780BC20 9601C0B0 9601C0B8
001C20  91800018 47800182 4700BC44 98560050   D2030050 B5148A50 00081B65 5E60B518
001C40  50600054 9200BC29 940FB25D 483002FA   4183C070 95108001 47B00182 9856B544
001C60  12664740 BC824140 B5444570 BC9C47F0   01829607 C0B09601 C0B096F0 B25D47F0
001C80  01829580 80004780 BC929680 50029601   8000D707 B544B544 47F00182 125507D7
001CA0  96018000 493002FE 47870008 952801F9   4780BCC6 9502B489 4770BCC6 D500B859
001CC0  02FB4787 00044570 014E5893 C074D207   6C009008 D2236008 902CD218 602C9010
001CE0  5050900C 113547F0 BD0C4570 BB841B44   4570BD3A 4570014E D203900C 6004D223
001D00  902C6008 D21B9010 602C1035 50340000   47F00182 4570BB84 41400001 4570BD3A
001D20  13304780 BD0C1255 4740BD0C 41210047   45708200 90014000 07F94A40 00224840
001D40  42E34830 028E1853 88500001 1A459856   40C007F7 9056B5AC 4550BE48 9856B5AC
001D60  47F0059C 9856B5AC 9501B5A8 4780B976   47F0059C 9056B5AC 4550BE48 9856B5AC
001D80  47F005F8 5850B5AC 5870B59C 5970B594   4740BD98 5870B590 18874A80 B5A05080
001DA0  B59C4380 B5A84188 00014280 B5A8D20F   70081000 41807000 40807012 92007011
001DC0  96017014 41807008 50804000 92FF4000   D2077000 60004386 00070680 4280BE01
001DE0  91807014 4710BDF0 41880004 42807007   58860000 95FFBE01 4770BE00 9200BE01
001E00  D2007018 80004180 70184080 70029200   70019180 70144710 BE3C4180 70154080
001E20  70029200 70014570 0D7E5870 B59C4B70   B5A0D201 70158002 92407017 96801002
001E40  41107008 47F005F8 D202B5A5 10095860   B5A45080 B5A41876 4A70B32C 597002C0
001E60  07259509 60004780 BE709501 60000775   91CC6004 07759115 10020775 9120100C
001E80  0775D501 6006B5A9 07255876 00004177   00004A76 00065970 02C00725 47F50008
001EA0  43703003 41770001 42703003 9220B2C4   9102600A 4710BECC D202B451 10095850
001EC0  B4505855 0000D203 60125002 4170BF8C   91086005 07179110 600C0717 9108600D
001EE0  47108F28 9101600C 4710BF52 9140600C   07179108 600C4710 BF6E4170 BF849124
001F00  600C0777 9102600D 07179180 600C0714   9102600C 4710BF96 9160600D 4770C028
001F20  91016005 071707F4 9102600D 4710BF58   4550C012 D501B450 60124770 BF589680
001F40  600A9104 10034710 BF849608 100347F0   B0E69180 600C0714 950A3003 07244180
001F60  B2B84570 B14A47F0 B02847F0 B1084550   C01695FF 30030784 910F3003 4780BF5E
001F80  47F08108 950A3003 47F0BF90 95013003   072447F0 B1084400 B0E65870 00404B70
001FA0  B32C5070 B2F89208 B2F84550 C0129101   B4484780 BFDA9562 30044780 BFC69509
001FC0  B4534780 C0249513 B45347B0 C0245870   B4504177 00015070 B4504570 0C0C91F0
001FE0  500A4780 C0029210 B2ED9506 50144770   C0064570 0D7E9240 B2ED9180 800C4780
002000  C0069200 B2ED4180 B2D04320 600047F0   B0F49240 B2C44180 B2C04570 B14A47F0
002020  B02807F5 96201003 D6001003 600D47F0   B0E6F5E2 2CE0FFFF FFFFFFFF 02900000
002040  00000000 00000000 00CCC000 2448001F   00000000 00000000 00000000 24D8002F
002060  00000000 00000000 00C0C000 02900000   8500E2D7 47F00244 00000000 000000FF
002080  0310C2C7 19001580 0A003000 240B1480   8000C6F2 19008000 01008000 012A0500
0020A0  8000C6F1 19008800 0F008800 023A1100   8C00C1D9 47F0B248 00002CE0 07002608
0020C0  84006150 47F0B1C0 40CC0408 0C101418   8400E2D7 47F001FA 21F20016 1F050000
0020E0  21E221AA 21F221F2 22422242 22422242   22422242 22422242 22422242 188018CA
```


Figure 6.4 (part 9 of 11)

```
002100  19D81A4C 1A2C00C2 1A6A1AB4 1AA21B7E   193A1AD0 1ADC00CE 04E01D18 1CEE1D14   .Q.<...B........  ................
002120  1CEA1D18 1CEE1AE8 1B0A1B26 04F41B90   04F4008F 00BE00BE 00BE00BE 01E601E6   ........Y.....4..  .4...........W.W
002140  00BE00BE 00BE00BE 00BEC0BE 00BE00BE   00BE00BE 1BAA00BE 00BE5860 020030C8   ..............-...H
002160  000029C0 03000000 04000000 05000000   060CC000 07000000 08000000 09000000   ................  ................
002180  FF000000 0D030000 0000CCCC 0000FFFF   FFFFFFFF FFFFFFFF FF03FFFF FFFFFFFF   ................  ................
0021A0  FFFF0000 09FFFFFF FFFFC020 FF00CC00   00F80021 FF00C000 00F80022 FF00C000   ................  .8.......8......
0021C0  00F80002 FF00D000 00F80003 FF00DC00   00F8000C FF001100 00FC000D FF002100   .8.......8.......  .8..............
0021E0  00FC000E FF004200 80FC001F FF00C000   00F80130 FF006200 00FC0131 FF006201   ..............  .8..............
002200  00F80132 FF006202 00F80180 FF0050C3   00C00181 FF0150C3 00C00182 FF025093   .8.......8....&C  ......&C.......&.
002220  01900183 FF035093 01900190 FF006003   00F80191 FF006004 00F8FF00 00000000   ......&.......-.  .8....-..8......
002240  0000FF01 BABC28FF 00000004 09FF80FF   05FF80FF 00000005 00000006 00000007   ................  ................
002260  00000008 00000009 0000000A 0000000B   0000000C 0000000D 0000000E 0000000F   ................  ................
002280  00000010 00000011 00000012 00000013   00000014 00000015 00000016 00000017   ................  ................
0022A0  00000018 00000019 0000001A 0000001B   0C00001C 0000001D 000000FF 00040000   ................  ................
0022C0  00000000 00000000 00000000 00000000   0C000000 00004570 F2404580 40641B00   ................  ........2 .. ...
0022E0  0A064110 FE041B00 0A01D206 FD07FD6F   47FCF7FA D207FCF7 FD8D47F0 F7D0D20B   ..........K.....  .07.K..7...07.K.
002300  FD07FD78 47F0F7FA D20FFC3F FDA847F0   F7820700 07000700 00000000 00000000   .....07.K......0  7...............
002320  00000000 00000000 00003D20 00003D2C   00000050 00000000 00001000 000000A0   ..............  ...&............
002340  000B2A3A 0B140511 05FF0503 06FF07FF   08FF0900 09FFFFFF FFFFFFFF FFFFFFFF   ................  ................
002360  09FF0702 09FFFFFF FFFFFFFF FFFFFFFF   FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF   ................  ................
002380  FFFFFFFF FFFFFFFF FFFFFFFF FFFF08FF   FFFF09FF FFFFFFFF FFFFFFFF FFFFFFFF   ................  ................
0023A0  FFFFFFFF FFFFFFFF FFFFFFFF FFFF08FF   FFFF09FF FFFFFFFF FFFFFFFF FFFFFFFF   ................  ................
0023C0  FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF   FFFFFFFF FFFFFFFF FFFFFFFF FFFF4040   ................  ................
0023E0  40404040 40404012 40C9D5C3 D6D9D9C5   C3E340D7 D9D6C7D9 C1D42040 C9D5E5C1   . INCORRE  CT PROGRAM. INVA
002400  D3C9C440 C9D5D7E4 E340C4C5 E5C9C3C5   40C1E340 E2E8E2F0 F0F44021 40C9D5E5   LID INPUT DEVICE   AT SYS004 . INV
002420  C1D3C9C4 40D6E4E3 D7E4E340 C4C5E5C9   C3C540C1 E340E2E8 E2F0F0F5 401F40C2   ALID OUTPUT DEVI  CE AT SYS005 . B
002440  40C9D5E5 C1D3C9C4 F1F261F1 F661F7F1   2D583000 00000000 0C000000 00000000    INVALID12/16/71  ................
002460  D5D640D5 C1D4C540 000087FF 00003F10   CCC03F10 00000020 0000FFFF F87C4680   NO NAME ........  ............8@..
002480  80004600 00B921A3 21AA2243 224422BE   23402344 234838F1 F2F1F6F7 F1F3F5F0   ..............  . .....121671350
0024A0  00002070 0000000A 1398147A 1524153C   15440010 21840020 0C000000 00000000   ..............  ................
0024C0  00000000 202C0000 00000000 02900000   CC000000 D5E5C1D3 F1F261F1 F661F7F1   ..............  ....NVAL12/16/71
0024E0  2D583000 00000000 00000000 00000000   D5D640D5 C1D4C540 0000FFFF 00003F10   ..............  NO NAME ........
002500  00003F10 00000030 0000FFFF F87C4680   80004600 00B921A3 21AA2243 224422BE   ............8@..  ................
002520  23402344 234838F1 F2F1F6F7 F1F3F5F0   00002070 0000000A 13E0147A 1524153C   . .....121671350  ................
002540  15440010 21840030 00000000 00000000   0C000000 202C0000 C0000000 02900000   ..............  ................
002560  00000000 00000600 00000000 00000000   0C000000 00000000 00000000 00FFD9C4   ..............  ..............RD
002580  40E2C5D8 E4C5D5C3 C51C40C9 61D640C1   D9C5C140 C3C1D5D5 D6E340C2 C540C1E2    SEQUENCE. I/O A  REA CANNOT BE AS
0025A0  E2C9C7D5 C5C42140 40404040 C9D5E5C1   D3C9C440 E4D5D7C1 C3D240D6 E4E3D7E4   SIGNED.     INVA  LID UNPACK OUTPU
0025C0  E340D3C5 D5C7E3C8 25404040 4040D9C5   C3D6D9C4 40C3C1D7 C1C3C9E3 E840C5E7   T LENGTH.     RE  CORD CAPACITY EX
0025E0  C3C5C5C4 C5C440C2 E8404040 40401F40   4C404040 C9D5E5C1 D3C9C440 D7C1C3D2   CEEDED BY     .       INVALID PACK
002600  40D6E4E3 D7E4E340                                                          OUTPUT

LBLTYP  HEX LENGTH IS 0000
--BG--
002CE0  D5D640D5 C1D4C540 FF15C004 E00036C8   0A0407F1 00003010 00003010 00003FD0   NO NAME .......H  ...1............
002D00  00004FD0 900036B2 00000023 000036A8   00003750 500036AA 00003C00 00007FDC   ..............  ...&&...........
002D20  00001000 000036A8 00002CF0 000036DC   00007851 00AD0C32 C1107A57 00000000   ..........0....  .........A.......
002D40  C1107A57 00000000 F9F9F9F9 F9F9F9F9   F9F9F9F9 F9F9F9F9 D3D7E3E6 D6404040   A.......99999999  99999999LPTWO
002D60  D2831014 10830A16 1806C7F7 41301083   5820E020 18521B53 41F000FF 41430001   K...........7....  .........0......
002D80  4B501082 47D0103C 44F0107C 41330100   47F01024 1AF544F0 107C4830 E05A4A30   .&.......0.@....  .0...5.0.@......
002DA0  E02E5833 00088930 00088830 00081913   47B01008 D2833100 10001813 47F01168   ..............  ....K.........0..
002DC0  D2831000 110047F0 1072D283 110010FF   47F01008 D2004000 30000100 00000000   K.......0..K.....  .0...K. ........
002DE0  00000000 --SAME--                                                          ....
003000  D3D7E3E6 D6404040 D2831014 10830A16   180607F7 00000000 00000000 00000000   LPTWO   K.......  ...7............
```

Figure 6.4 (part 10 of 11)

```
        TA#01      8         12/16/71                                                                              PAGE    7

003020  00000000 --SAME--                                                                  ....
0036A0  00000000 00000000 05205850 202645F0   208A1B88 41880001 19584740 200A4180          ...........&....  ........... ....
0036C0  2032D207 0050202A 45E020BE 47F02004   00001000 D7D9D6C3 C5E2E240 5C5C5C5C          ..K..&.......0..  ....PROCESS ****
0036E0  5C5C5C5C 5C5C5C5C 5C5C5C5C 5C5C5C40   40404040 40404040 40C4C1E3 C140C3C1          ***************            DATA CA
003700  D9C440D5 E4D4C2C5 D94040F1 40404040   40404040 5C5C5C5C 5C5C5C5C 5C5C5C5C          RD NUMBER  1          ************
003720  5C5C5C5C 5C5C5C5C 5C5C5C5C 40404040   40404040 581020EE 0A005810 20EE9180          ************          ............
003740  10024710 209E0A07 910120AA 078E0A0E   00008000 08000001 00003760 00003768          ................  ...........-....
003760  020036DC 20000050 581020F2 0A005810   20F29180 10024710 20D20A07 07FE0000          .......&...2....  .2.......K......
003780  00000000 01020000 37900000 00000000   090036DC 20000058 00003750 0000377E          ................  ...........&....
0037A0  00000000 --SAME--                                                                  ....
007FE0  00000000 00000000 00000000 00000000   00000000 00000000 00000000 00000000          ................  ................
```

Figure 6.4 (part 11 of 11)

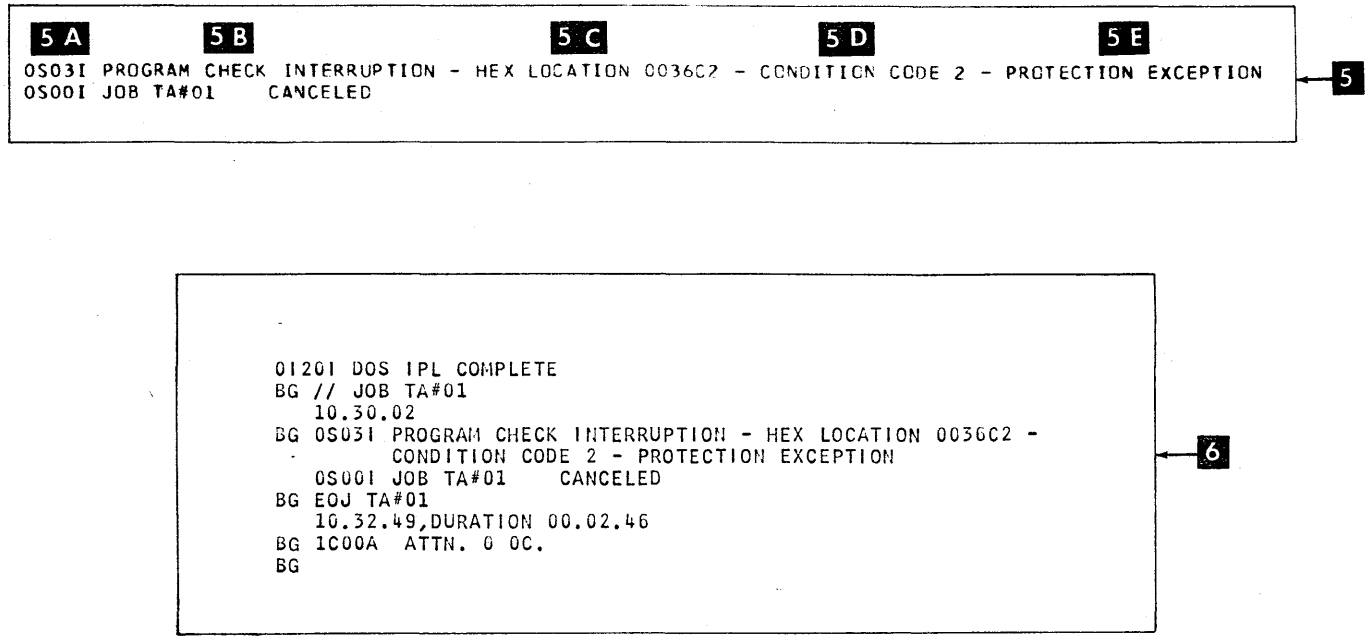

5A
5B
5C
5D
5E
0S03I PROGRAM CHECK INTERRUPTION - HEX LOCATION 0036C2 - CONDITION CODE 2 - PROTECTION EXCEPTION
0S00I JOB TA#01 CANCELED
5
01201 DOS IPL COMPLETE
BG // JOB TA#01
10.30.02
BG 0S03I PROGRAM CHECK INTERRUPTION - HEX LOCATION 0036C2 -
CONDITION CODE 2 - PROTECTION EXCEPTION
0S00I JOB TA#01 CANCELED
BG EOJ TA#01
10.32.49,DURATION 00.02.46
BG 1C00A ATTN. 0 0C.
BG
6

Figure 6.5

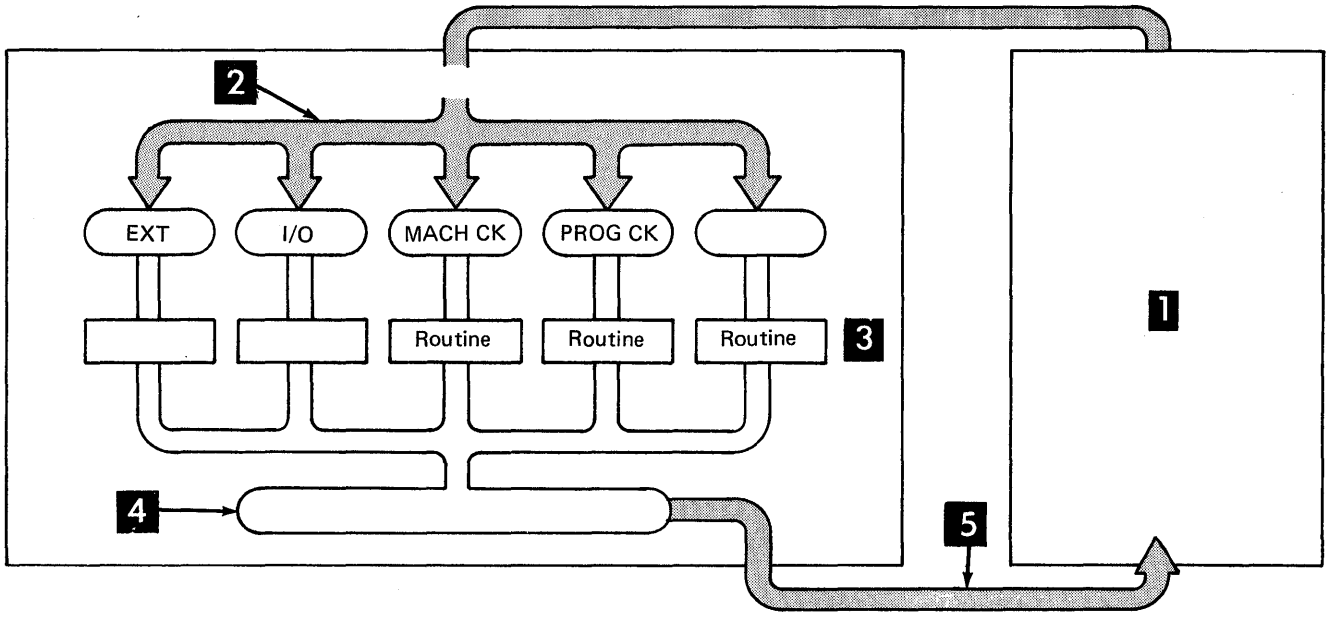


Figure 7.1 Supervisor Concepts

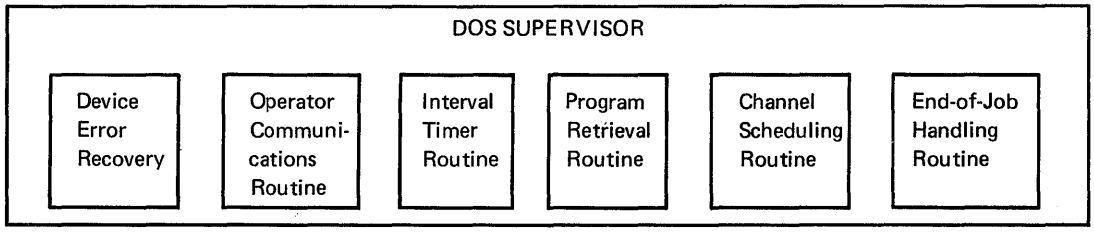


Figure 7.2 Supervisor Services

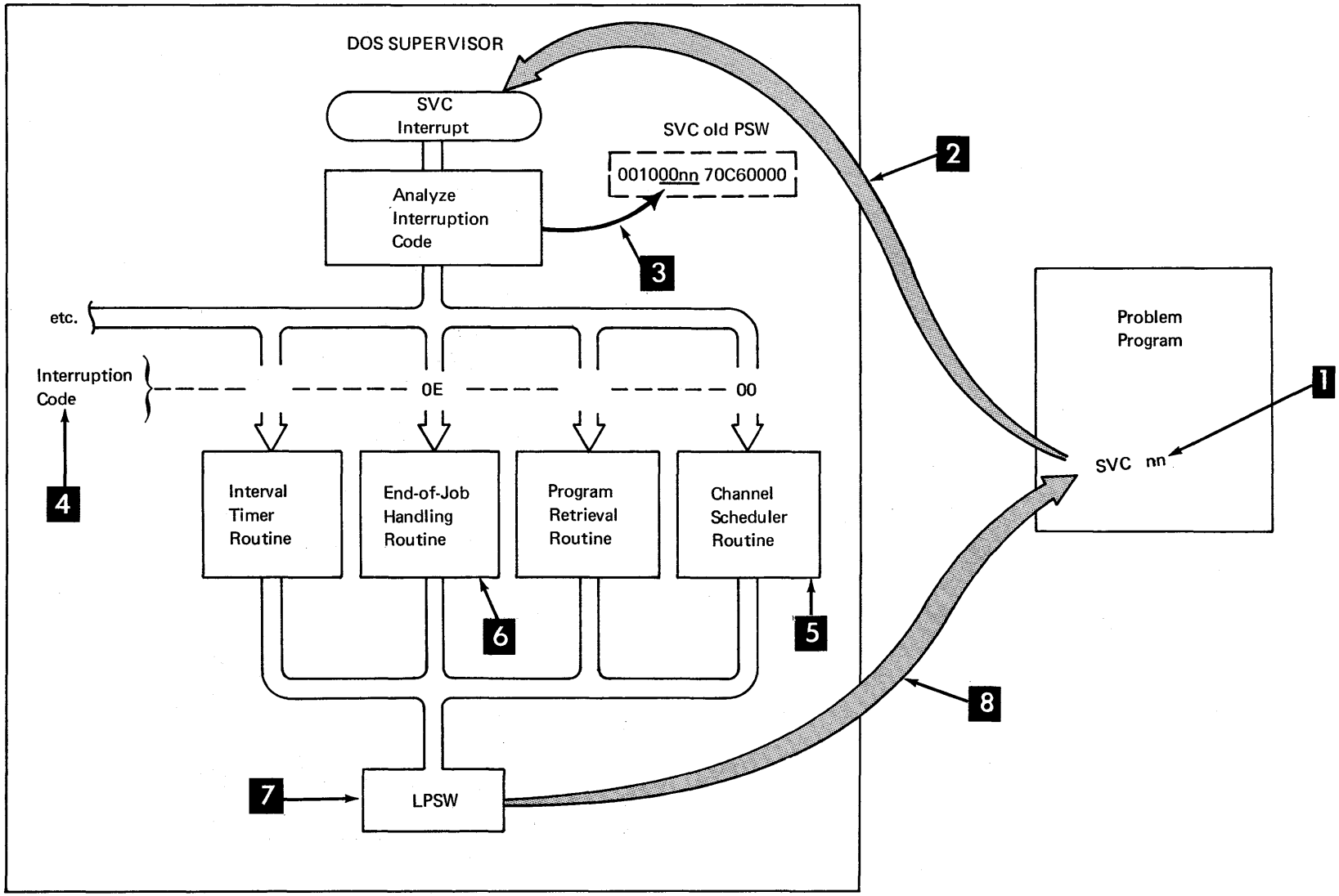


Figure 7.3 Requesting Supervisor Functions

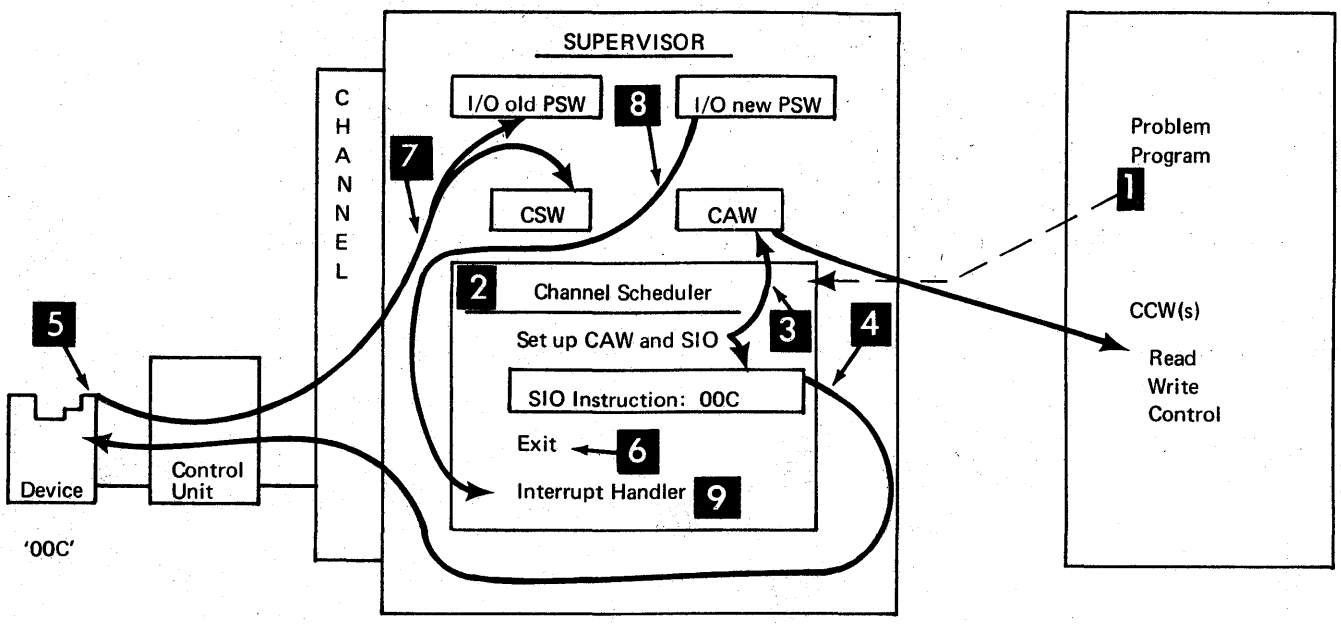


Figure 7.4 Supervisor/Hardware Interface

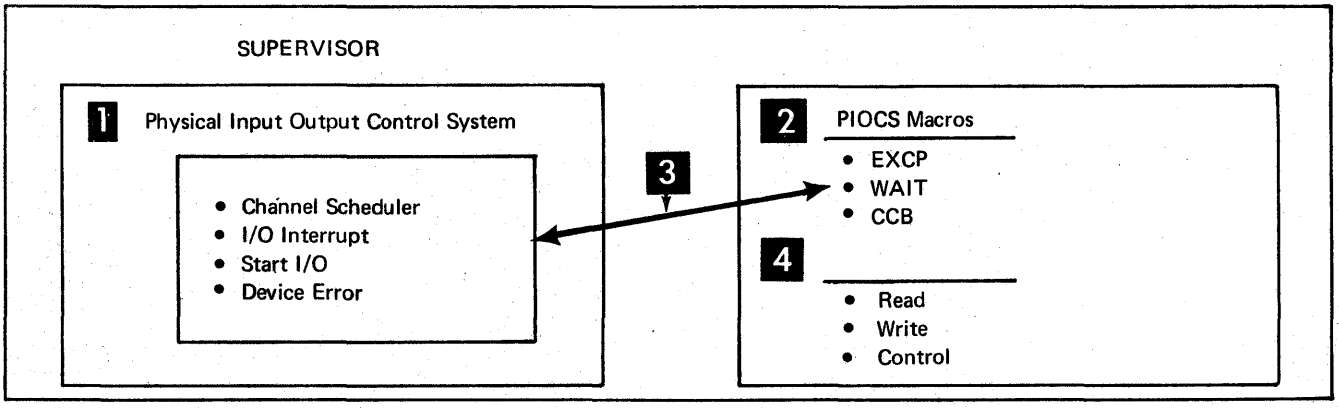


Figure 7.5 PIOCS

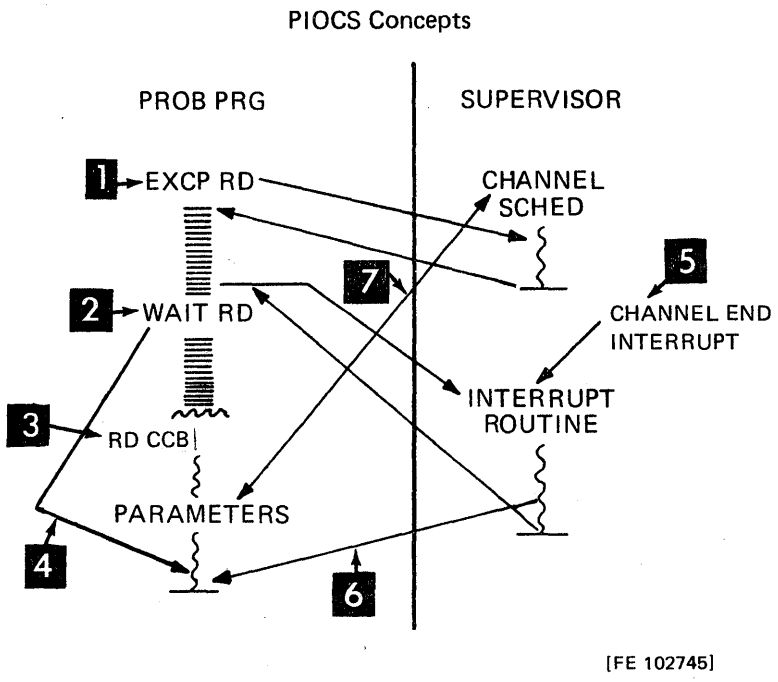


Figure 7.6 Overall PIOCS Concepts

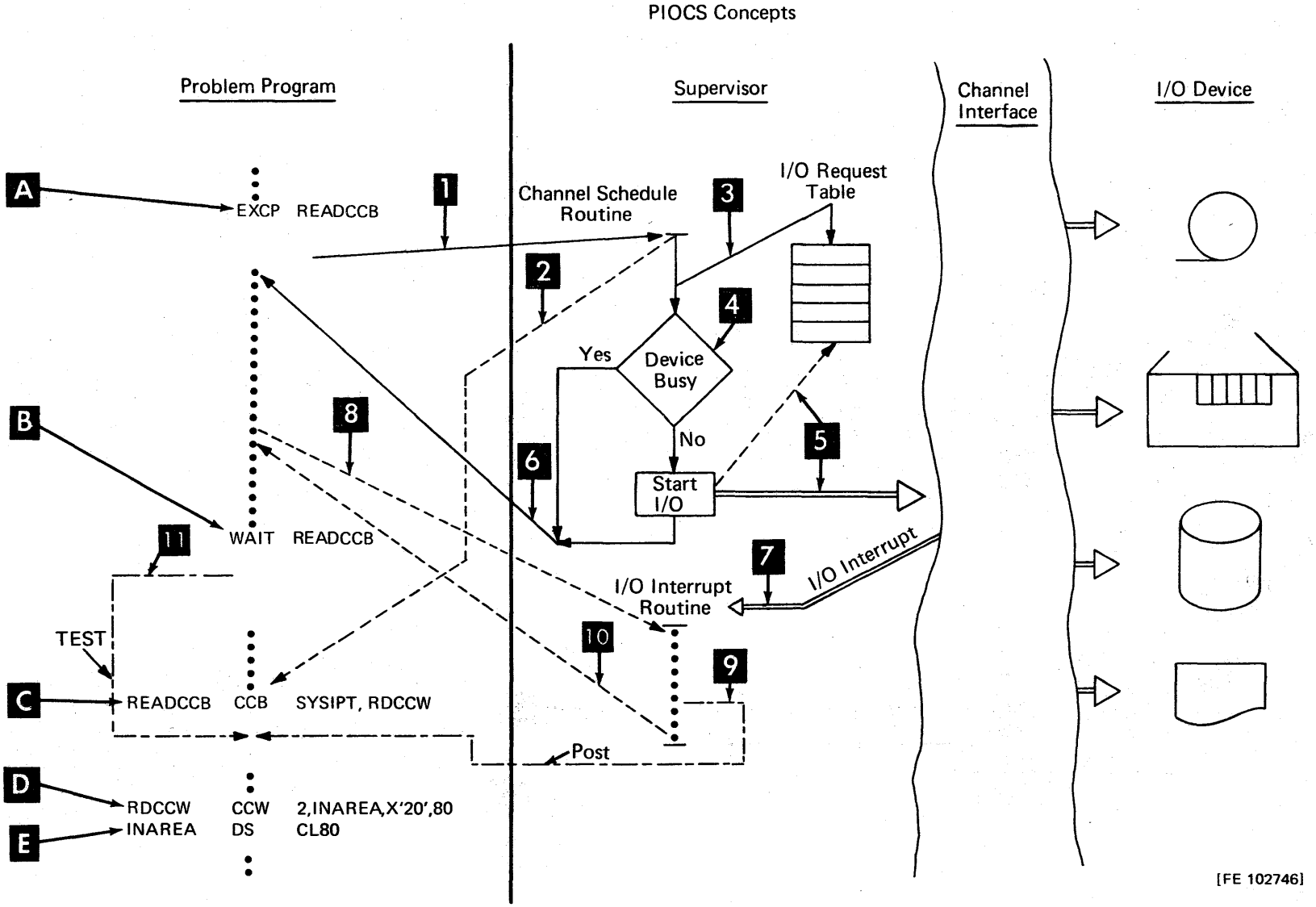


Figure 7.7 PIOCS Concepts

```
STM     2, 3, WORK      save contents of register 2 and 3
L       2, DATA 1       load value from DATA 1 in register 2
L       3, DATA 2       load value from DATA 2 in register 3
AR      2, 3            add the values
ST      2, DATA 3       store answer in DATA 3
LM      2, 3, WORK      restore contents of register 2 and 3
```

Figure 8.1 Assembler Language Source Statements to Add Two Fields

NAME	OPERATION	OPERAND
	ADD	source 1, source 2, target, save area

ADD – macro name

[source 1 / source 2] substitute name of four byte field to be added.

target – substitute name of four byte field where answer is to be placed.

save area – substitute name of eight byte area used for register save area.

Figure 8.2 Example of ADD Macro Format

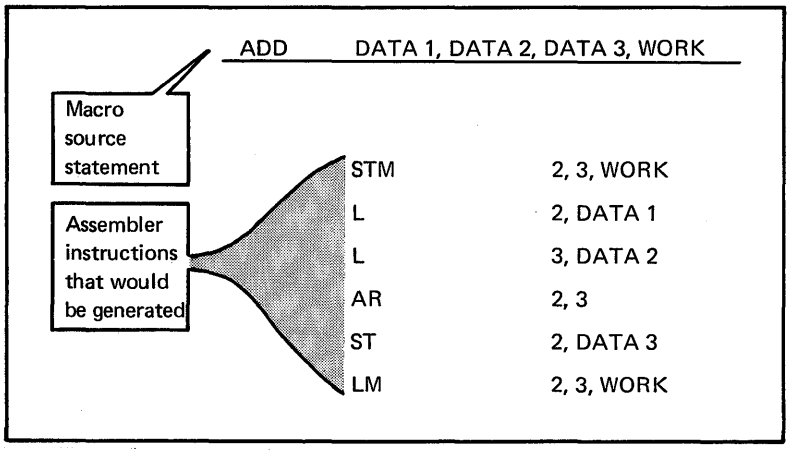


Figure 8.3 Generated Code

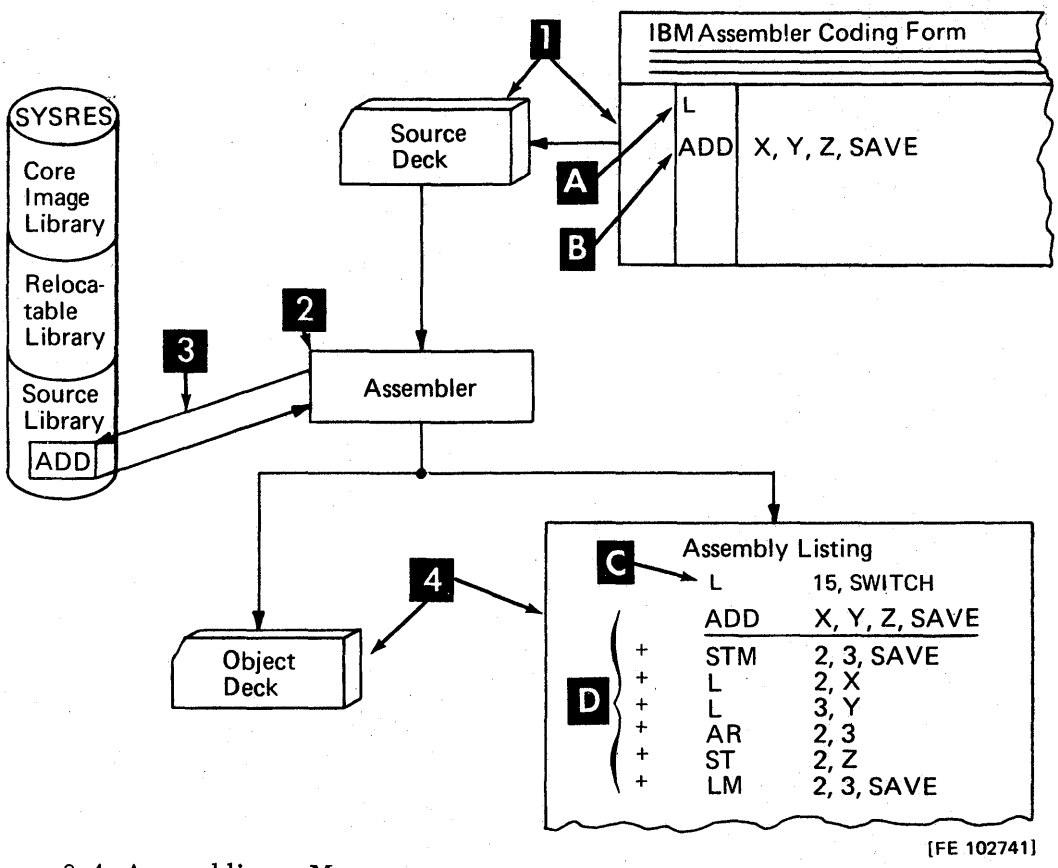


Figure 8.4 Assembling a Macro

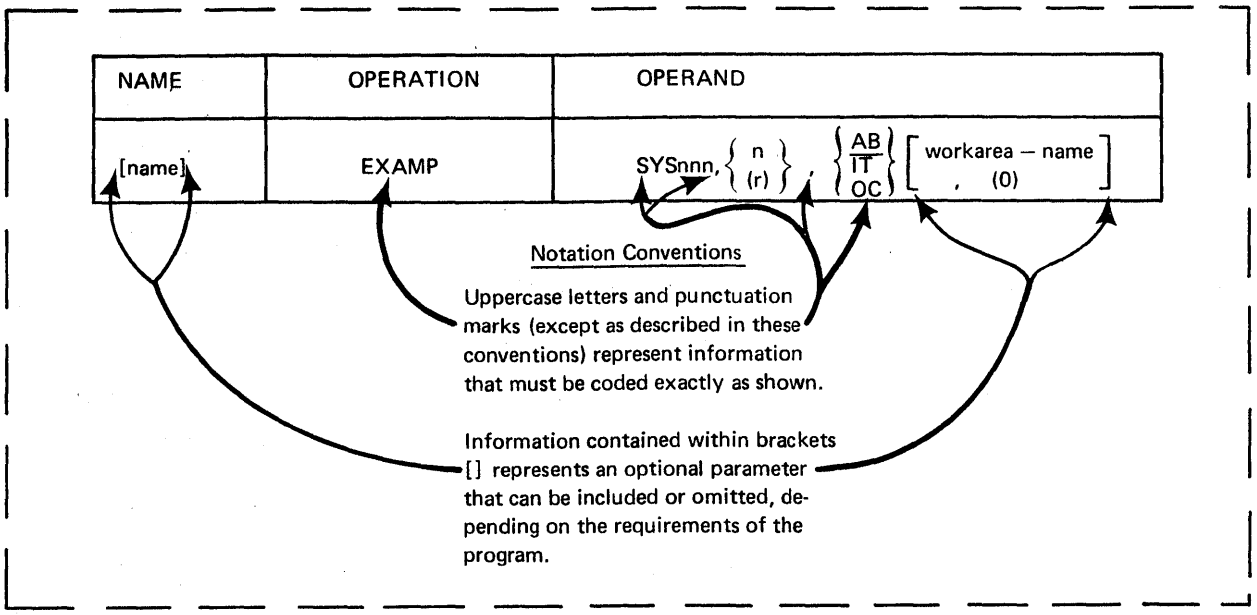


Figure 8.5 Notation Convention #1

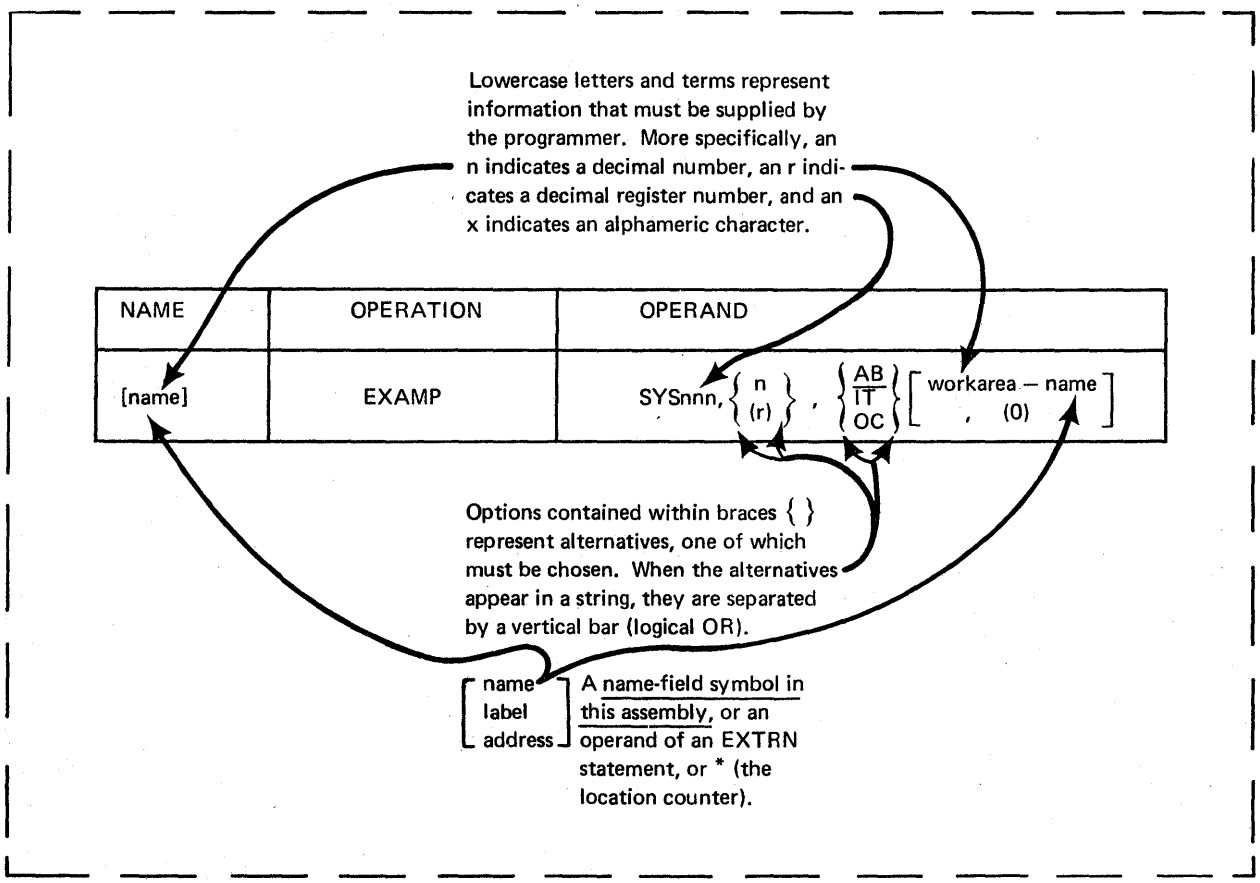


Figure 8.6 Notation Convention #2

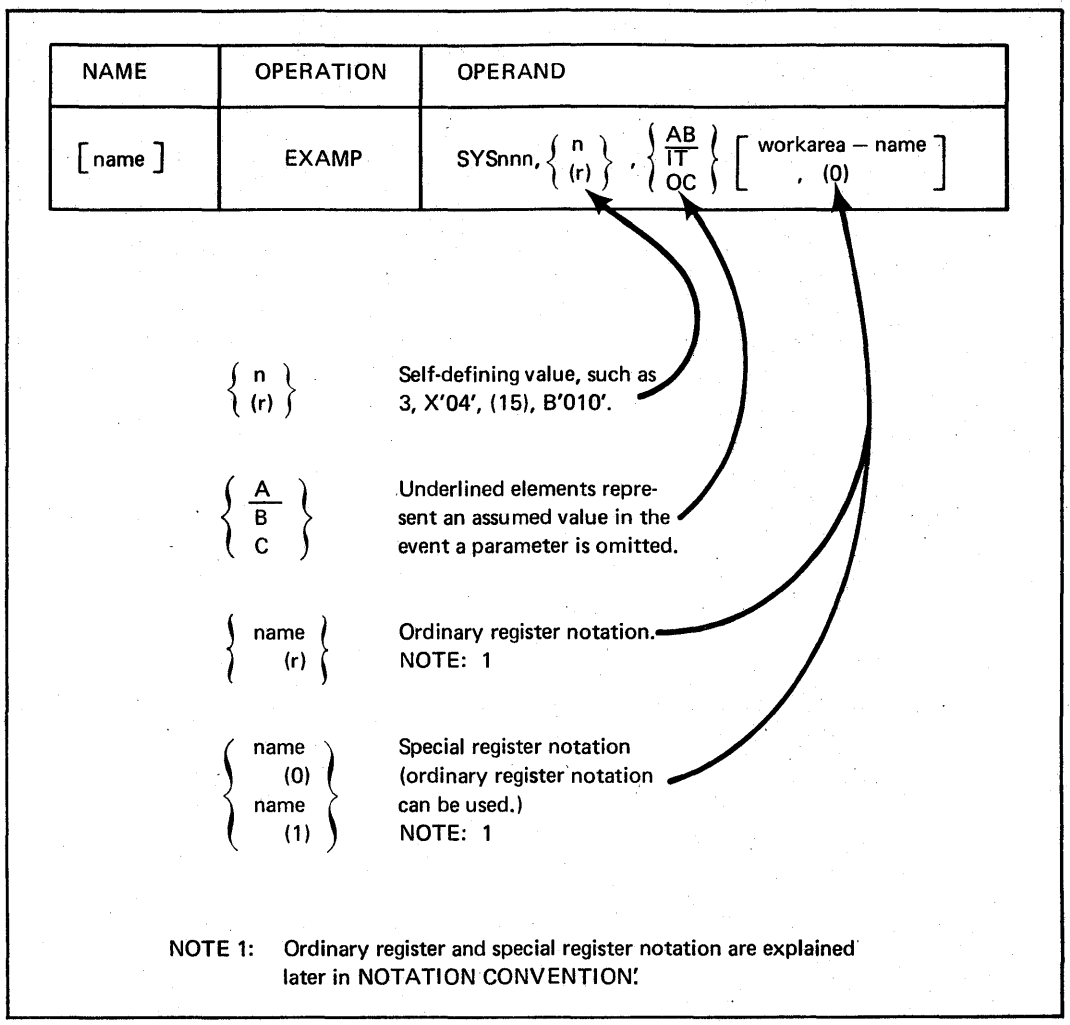


Figure 8.7 Notation Convention #3

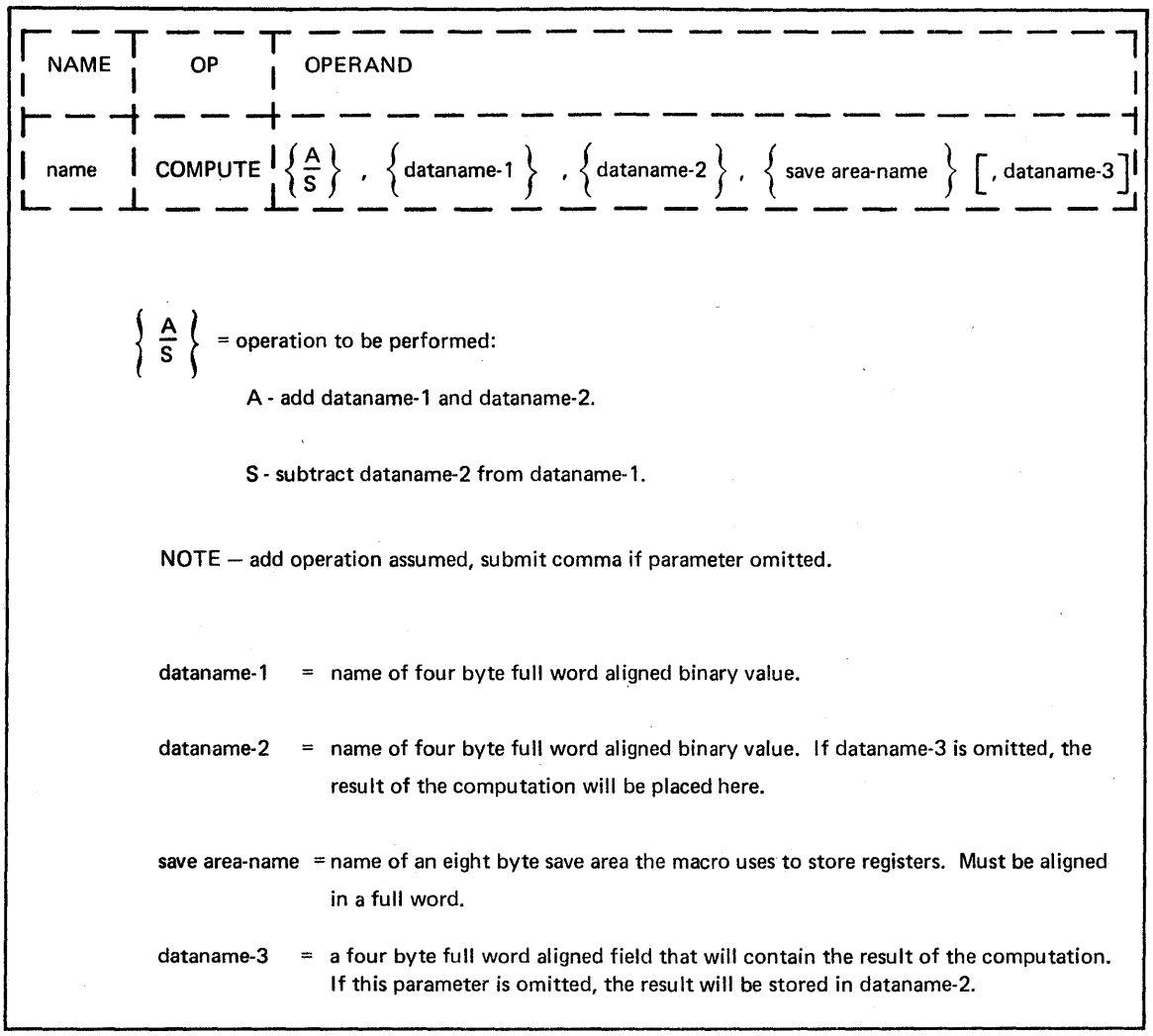


Figure 8.8 Compute Macro

The following conventions are used in this publication to illustrate macro instructions:

1. Uppercase letters and punctuation marks (except as described in these conventions) represent information that must be coded exactly as shown.
2. Lowercase letters and terms represent information that must be supplied by the programmer. More specifically, an n indicates a decimal number, an r indicates a decimal register number, and a x indicates an alphameric character.
3. Information contained within brackets [ ] represents an optional parameter that can be included or omitted, depending on the requirements of the program.
4. An ellipsis (a series of three periods enclosed by commas) indicates that a variable number of items may be included.
5. Options contained within braces { } represent alternatives, one of which must be chosen. When the alternatives appear in a string, they are separated by a vertical bar (logical OR).
6. [name / label / address] — A name-field symbol in this assembly, or an operand of an EXTRN statement, or * (the location counter).
7. filename — Symbol appearing in the name field of a DTF macro instruction.
8. { n / (r) } — Self-defining value, such as 3, X'04', (15), B'010'.
9. length — Absolute expression, as defined in the Assembler publication.
10. { A / B / C } — Underlined elements represent an assumed value in the event a parameter is omitted.
11. { name / (r) } — Ordinary register notation.
12. { name (0) / name (1) } — Special register notation (ordinary register notation can be used.)

Register Notation

Certain operands can be specified in either of two ways:

1. The user can specify the operand directly.
2. The user can preload address of the value into a register before executing the macro instruction.

In the latter case, the user must specify the register in the macro instruction. (The registers that can be used for this purpose are discussed under Register Usage.) This method is known as ordinary register notation. When the macro instruction is assembled, instructions are generated to pass the information specified in the operand to IOCS or to the supervisor. For example, if an operand is written as (8), and if the corresponding parameter is to be passed to the supervisor in register 0, the macro expansion contains the instruction LR 0,8.

The user can conserve main storage and save execution time by using what is known as special register notation. In this method, the operand is expressed as either (0) or (1). This notation is special for two reasons:

- The register notation designation of registers 0 and 1 is not allowed unless specifically designated.
- The designation must be made by the specific three characters (0) or (1). When special register notation is indicated by (0) or (1) in a macro instruction, the user can use ordinary register notation and the macro expansion will contain the extra (LR) instruction.

The format description for each macro instruction shows whether special register notation can be used, and for which operands. For example,

GET { filename / (1) } [, { workname / (0) }]

The format description shows that the filename operand can be written as (1), and the workname operand as (0). If either of these special register notations is used, the user's problem program must load the designated parameter register before execution of the macro expansion. Ordinary register notation can also be used.

Figure 8.9 Notation Conventions

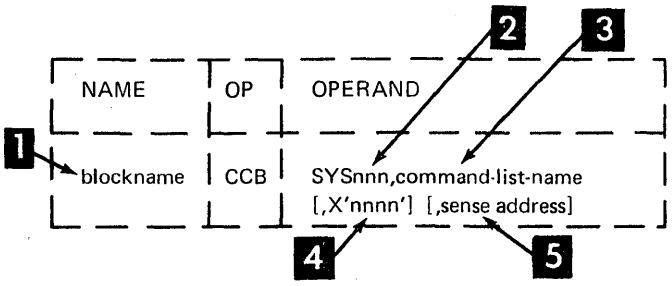


Figure 8.10 CCB Macro

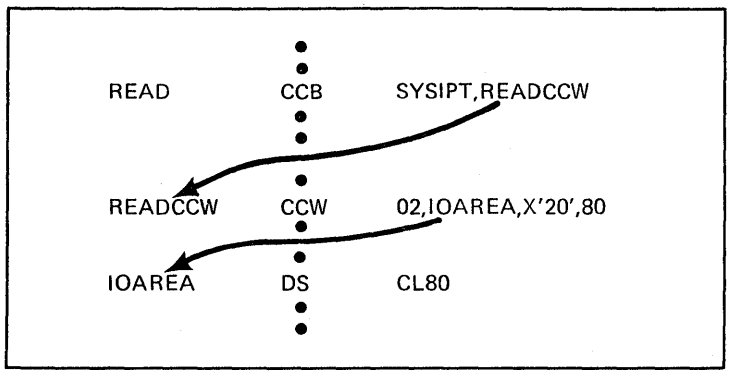


Figure 8.11 CCB Example 1 (Read a Card from SYSIPT into an area called IOAREA)

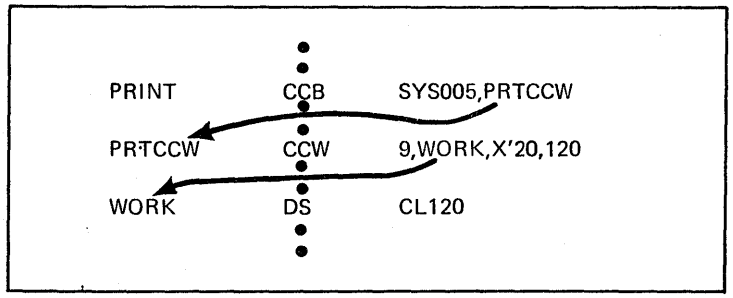


Figure 8.12 CCB Example 2 (Print a record on SYS005 from the I/O area called WORK)

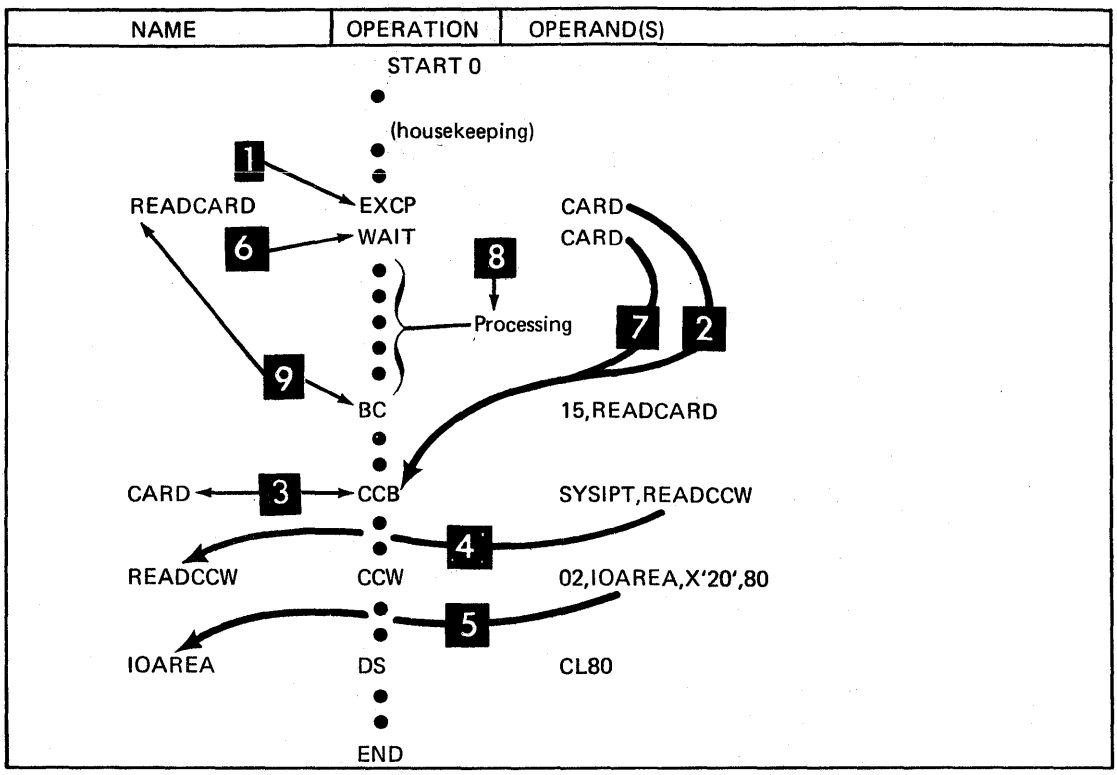
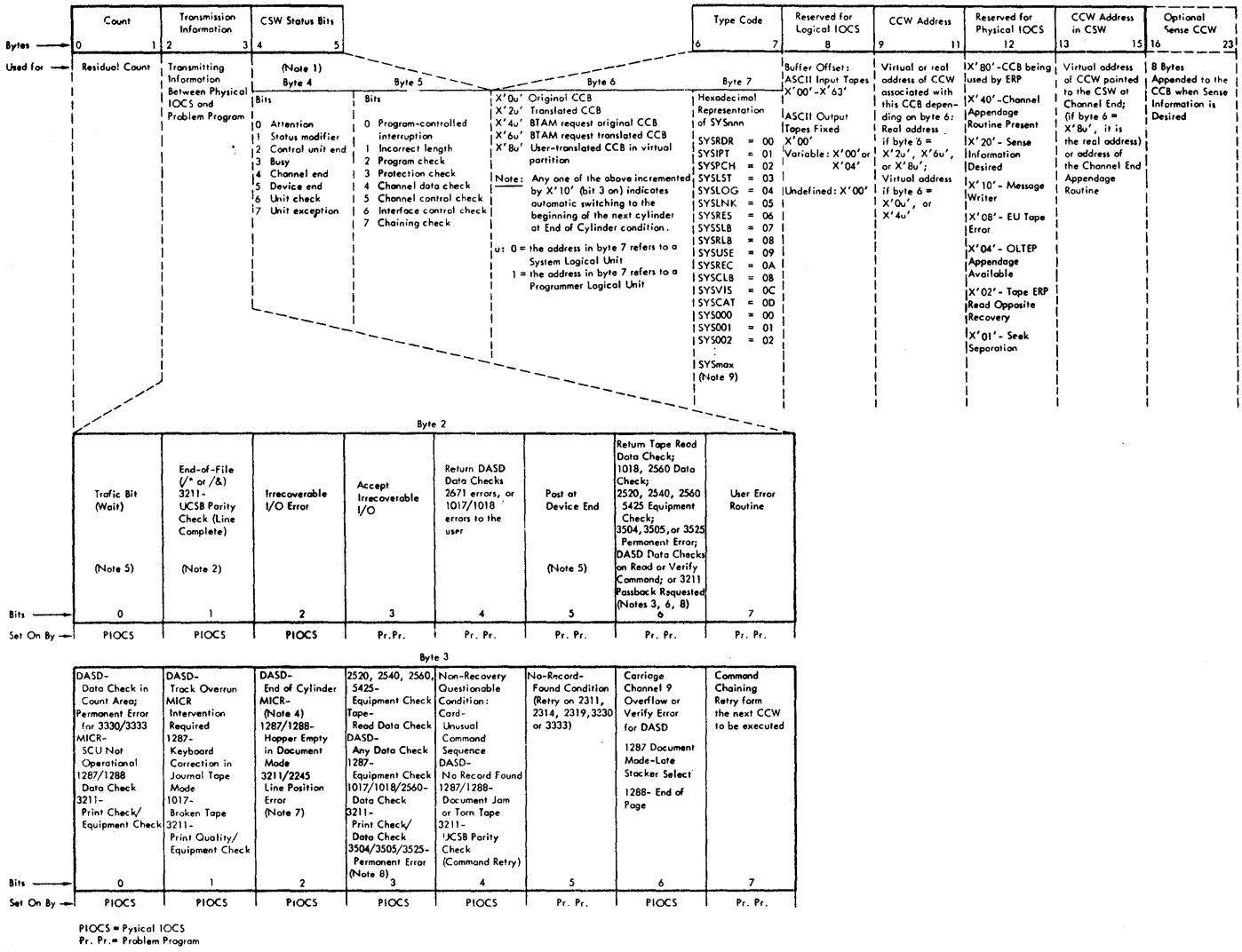


Figure 8.13 PIOCS Macros to Read a Card



Note 1. Bytes 4 and 5 contain the status bytes of the Channel Status Word (Bits 32-47). If byte 2, bit 5 is on and device end results as a separate interrupt, device end will be ORed into CCB byte 4.
Note 2. Indicates /* or /& statement encountered on SYSRDR or SYSIPT. Byte 4 bit 7 (unit exception) is also on.
Note 3. DASD data checks on count not returned.
Note 4. For 1255/1259/1270/1275/1419, disengage. For 1275/1419D, I/O Error in external interrupt routine (channel data check or busout check).
Note 5. The traffic bit (Byte 2, bit 0) is normally set on at channel end to signify that the I/O was completed. If byte 2, bit 5 has been set on, the traffic bit and bits 2 and 6 in byte 3 will be set on at device end. Also see Note 1.
Note 6. 1018 ERP does not support the Error Correction Function.
Note 7. This error occurs as an equipment check, data check, or FCB parity check. For 2245, this error occurs as a data check or FCB parity check.
Note 8. For 3504/3505/3525 input or output files using ERROPT, byte 3, bit 3 is set on if a permanent error occurs. Byte 2, bit 6 is set on to allow you to accept permanent errors.
Note 9. SYSmax=255- (number of partitions+ 14).

Figure 8.14 Command Control Block (CCB)

Byte	Bit		Condition Indicated		On Values for Third Operand in CCB Macro	Mask for Test Under Mask Instruction
			1 (ON)	0 (OFF)		
2	0	Traffic Bit (WAIT).	I/O Completed. Normally set at Channel End. Set at Device End if bit 5 is ON.	I/O requested and not completed.		X'80'
	1	End of File on System Input. 3211 UCSB Parity Check (line complete)	/* or /& on SYSRDR or SYSIPT. Byte 4, Unit Exception Bit is also ON. Yes	 No		X'40'
	2	Unrecoverable I/O Error	I/O error passed back due to program option or operator option.	No program or operator option error was passed back.		X'20'
	3[1]	Accept Unrecoverable I/O Error (Bit 2 is ON)	Return to user after physical IOCS attempts to correct I/O error.	Operator Option: Dependent on the Error	X'1000'	X'10'
	4[1]	2671 data check. 1017/1018 data checks. Return any DASD data checks.	Operator Options: Ignore, Retry, or Cancel. Ignore or Cancel. Return to user.	Operator Option: Retry or Cancel. Cancel.	X'0800'	X'08'
	5[1]	Post at Device End.	Device End condition is posted; that is, byte 2, bit 0 and byte 3, bits 2 and 6 set at Device End. Also byte 4, bit 5 is set.	Device End conditions are not posted. Traffic bit is set at Channel End.	X'0400'	X'04'
	6[1]	Return: Uncorrectable tape read data check (2400–series, 3420, or 2495); 1018 data check; 2540 or 2520 punch equipment check; DASD read or verify data check; 3211 passback requested. (Data checks on count not returned.)	Return to user after physical IOCS attempts to correct 3211, tape or DASD error. Return to user when 1018 data check.[4]	Operator Option: Ignore or Cancel for tapes, punches, or paper tape punch (1018). Retry or cancel for DASD.	X'0200'	X'02'
	7[1]	User Error Routine	User handles error recovery.[3]	A physical IOCS error routine is used unless the CCB sense address operand is specified. The latter requires user error recovery.	X'0100'	X'01'
3	0	Data check in DASD count Field. Data check–1285, 1287, or 1288. MICR–SCU not operational. 3211 Print Check (equipment check).	Yes–Byte 3, bit 3 is OFF; Byte 2, bit 2 is ON. Yes Yes Yes	No No No No		X'80'
	1	DASD Track overrun. 1017 broken tape. Keyboard correction 1285 or 1287 in Journal Tape Mode. 3211 print quality error (equipment check). MICR intervention required.	Yes Yes Yes Yes Yes	No No No No No		X'40'

Figure 8.15 Conditions Indicated by CCB Bytes 2 and 3 (Part 1 of 2)

Byte	Bit		Condition Indicated		On Values for Third Operand in CCB Macro	Mask for Test Under Mask Instruction
			1 (ON)	0 (OFF)		
3	2	End of DASD Cylinder.	Yes	No		X'20'
		Hopper Empty 1287/1288 Document Mode.	Yes	No		
		MICR - 1255/1259/1270/1275/1412/1419, disengage.	Document feeding stopped.	No		
		- 1275/1419D, I/O error in external interrupt routine.	Channel data check or Busout check.			
		3211 line position error.[5]	Yes	No		
	3	Tape read data check (2400-series or 2495); 2540 or 2520 punch equipment check; or any DASD data check.	Operation was unsuccessful. Byte 2, bit 2 is also ON. Byte 3, bit 0 is OFF.	No		X'10'
		1017/1018 data check.	Yes	No		
		1285, 1287, or 1288 equipment check.	Yes	No		
		3211 data check (print check).	Yes	No		
	4	Questionable Condition.	Card: Unusual command sequence (2540). DASD: No record found.			X'08'
		Nonrecovery	1285/1287/1288: Document jam or torn tape.			
		UCSB parity check (command retry).	Yes	No		
	5[1]	No record found condition	Retry command if no record found condition occurs (disk).	Set the questionable condition bit ON and return to user.	X'0004'	X'04'
	6	Verify error for DASD or Carriage Channel 9 overflow	Yes. (Set ON when Channel 9 is reached only if Byte 2, bit 5 is ON).	No		X'02'
		1287 document mode-late stacker select.	Yes	No		
		1288 End-of-Page (EOP).	Yes	No		
	7[1]	Command Chain Retry	Retry begins at last CCW executed.	Retry begins at first CCW of channel program.	X'0001'	X'01'

1 User Option Bits. Set in CCB macro. Physical IOCS sets the other bits OFF at EXCP time and ON when the condition specified occurs.

2 I/O program check, command reject, or tape equipment check always terminates the program.

3 For System/360, the user must handle all error or exceptional conditions except Channel Control Check, Interface Control Check, I/O Program Check, and I/O Protection Check. For System/370, the usermay handle Channel Control Checks and Interface Control Checks. The occurrence of a channel data check, unit check, or chaining check causes a byte 2, bit X'20' of the CCB to turn on, and completion posting and dequeuing to occur. I/O program and protection checks always cause program termination. Incorrect length and unit exception are treated as normal conditions (posted with completion). Also, the user must request device end posting (CCB byte 2, bit X'04') in order to obtain errors after channel end.

4 Error correction feature for 1018 is not supported by physical IOCS. When a 1018 data check occurs and CCB byte 2, bit X'02' is on, control returns directly to the user with CCB byte 3, bit X'10' turned on.

5 A line position error can occur as a result of an equipment check, data check, or FCB parity check.

Figure 8.15 Conditions Indicated by CCB Bytes 2 and 3 (Part 2 of 2)

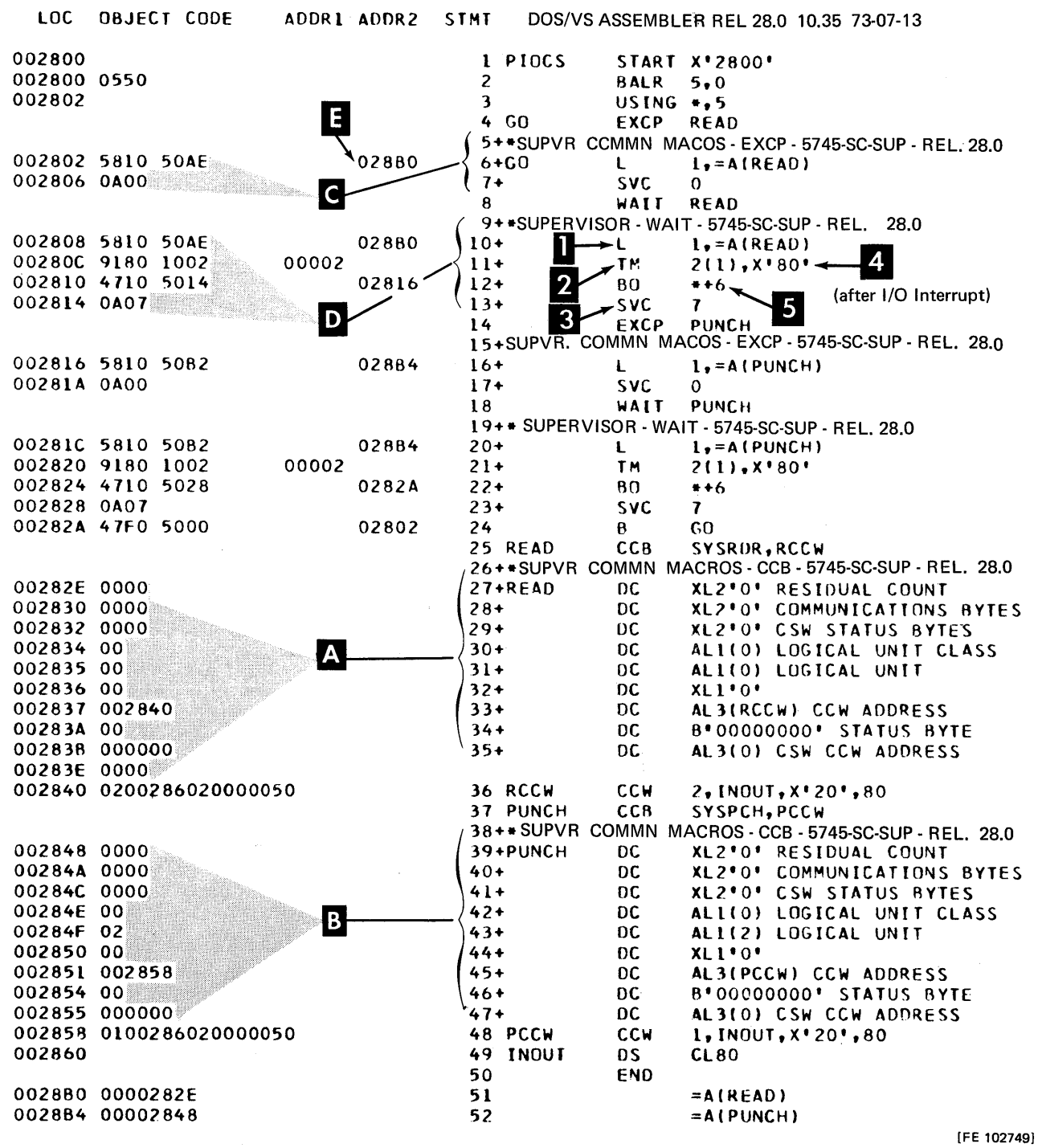


Figure 8.16 Sample PIOCS Program

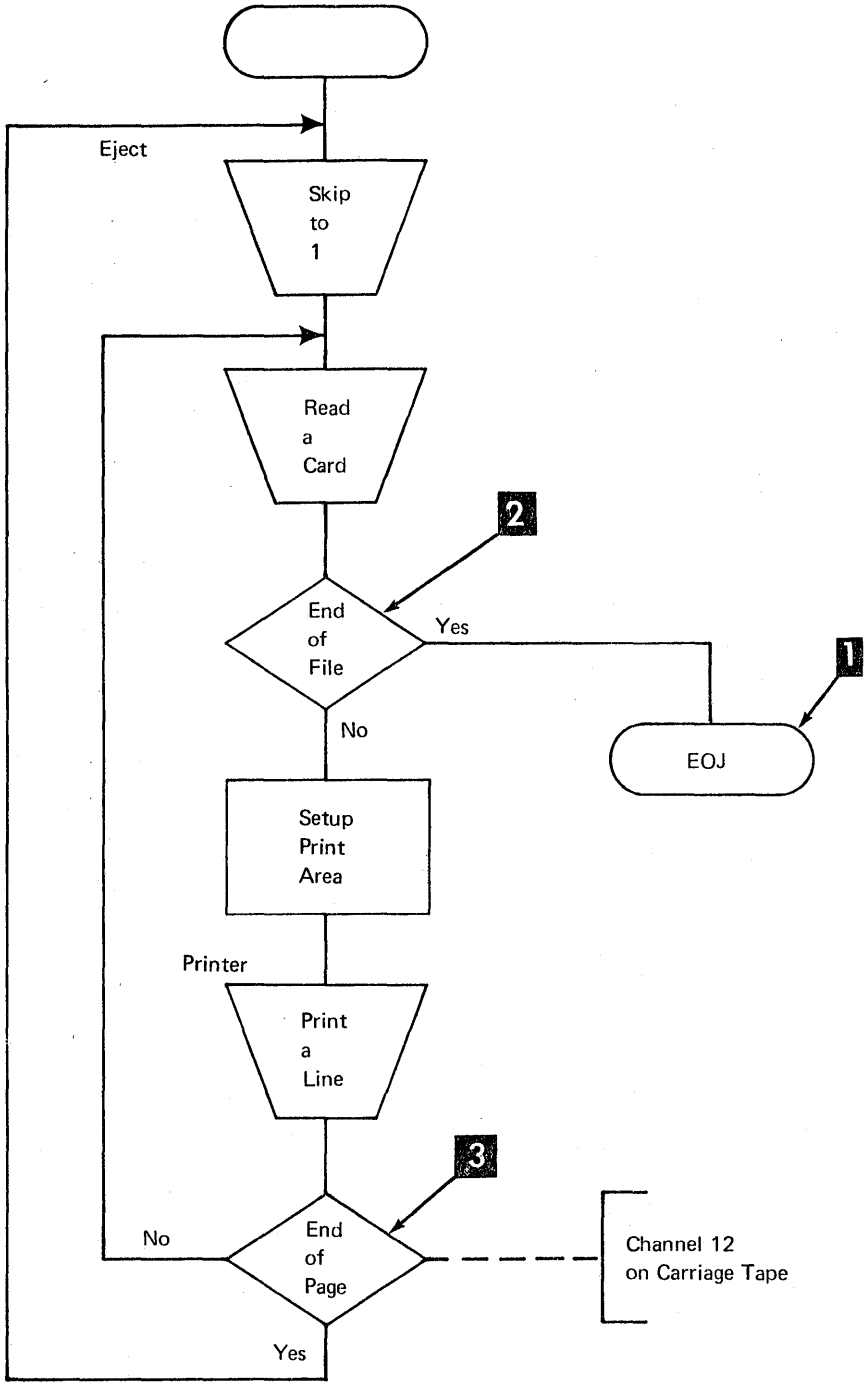


Figure 8.17 Flowchart for Figure 8.18

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    DOS/VS ASSEMBLER REL 28.0 10.04 73-07-16

000000                             1 START    START 0
000000 0520                        2          BALR  2,0
                              00002    3          USING *,2
                                       4 EJECT    EXCP  SKIP
                                       5+* SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                  15050028
000002 5810 2146              00148    6+EJECT    L     1,=A(SKIP)                                               35000025
000006 0A00                            7+         SVC   0                                                  EM 55010028
                                       8          WAIT  SKIP
                                       9+* SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                         12000028
000008 5810 2146              00148   10+         L     1,=A(SKIP)                                               30000025
00000C 9180 1002        00002         11+         TM    2(1),X'80'                                               54000025
000010 4710 2014        00016         12+         BO    *+6                                                      57000025
000014 0A07                           13+         SVC   7                                                        60000025
                                      14 READ     EXCP  CARD
                                      15+* SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                  15050028
000016 5810 214A              0014C   16+READ     L     1,=A(CARD)                                               35000025
00001A 0A00                           17+         SVC   0                                                  EM 55010028
                                      18          WAIT  CARD
                                      19+* SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                        12000028
00001C 5810 214A              0C14C   20+         L     1,=A(CARD)                                               30000025
000020 9180 1002        00002         21+         TM    2(1),X'80'                                               54000025
000024 4710 2028        0002A         22+         BO    *+6                                                      57000025
000028 0A07                           23+         SVC   7                                                        60000025
00002A 9101 211A        0011C         24          TM    CARD+4,X'01'      END OF FILE TEST ON READER
00002E 4710 2056              00058   25          BC    1,EOJ
000032 D24F 20C6 2076 000C8 00078     26          MVC   OUT,IN            SET UP OUTPUT AREA
                                      27 PRINTER  EXCP  PRINT
                                      28+* SUPVR COMMN MACOS - EXCP - 5745-SC-SUP - REL. 28.0                  15050028
000038 5810 214E              00150   29+PRINTER  L     1,=A(PRINT)                                              35000025
00003C 0A00                           30+         SVC   0                                                  EM 55010028
                                      31          WAIT  PRINT
                                      32+* SUPERVISOR - WAIT - 5745-SC-SUP - REL. 28.0                        12000028
00003E 5810 214E              00150   33+         L     1,=A(PRINT)                                              30000025
000042 9180 1002        00002         34+         TM    2(1),X'80'                                               54000025
000046 4710 204A        0004C         35+         BO    *+6                                                      57000025
00004A 0A07                           36+         SVC   7                                                        60000025
00004C 9101 205C        0005E         37          TM    PRINT+4,X'01'       TEST FOR CHANNEL 12 IN TAPE
000050 4710 2000              00002   38          BC    1,EJECT           YES
000054 47F0 2014              00016   39          BC    15,READ             READ ANOTHER CARD
                                      40 EOJ      EOJ
                                      41+* SUPVR COMMN MACROS - EOJ - 5745-SC-SUP - REL. 28.0                  40000028
000058 0A0E                           42+EOJ      SVC   14                                                       50000025
                                      43 PRINT    CCB   SYSLST,PRTCCW,X'0400'
                                      44+* SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0                  07100028
00005A 0000                           45+PRINT    DC    XL2'0'          RESIDUAL COUNT                           49000028
00005C 0000                           46+         DC    XL2'0400'         COMMUNICATIONS BYTES                   50000028
00005E 0000                           47+         DC    XL2'0'          CSW STATUS BYTES                         51000028
000060 00                             48+         DC    AL1(0)            LOGICAL UNIT CLASS                     52000028
000061 03                             49+         DC    AL1(3)          LOGICAL UNIT                             53000028
000062 00                             50+         DC    XL1'0'                                                   54000028
000063 000128                         51+         DC    AL3(PRTCCW)     CCW ADDRESS                              55000028
```

1
2
3
4

Figure 8.18 (Part 1 of 2)

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                            DOS/VS ASSEMBLER REL 28.0 10.04 73-07-16

000066 00                          52+          DC    B'00000000'     .     STATUS BYTE             56000028
000067 000000                      53+          DC    AL3(0) .           CSW CCW ADDRESS            57000028
00006A 000000000000
000070 0200007800000050            54 CDCCW     CCW   2,IN,0,80        READ A CARD CCW
000078                             55 IN        DS    CL80
0000C8                             56 OUT       DS    CL80
                                   57 CARD      CCB   SYSIPT,CDCCW
                                   58+* SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0              07100028
000118 0000                        59+CARD      DC    XL2'0' .           RESIDUAL COUNT             49000028
00011A 0000                        60+          DC    XL2'0'      .        COMMUNICATIONS BYTES     50000028
00011C 0000                        61+          DC    XL2'0' .           CSW STATUS BYTES           51000028
00011E 00                          62+          DC    AL1(0)      .          LOGICAL UNIT CLASS     52000028
00011F 01                          63+          DC    AL1(1)     .          LOGICAL UNIT            53000028
000120 00                          64+          DC    XL1'0'                                        54000028
000121 000070                      65+          DC    AL3(CDCCW)  .      CCW ADDRESS                55000028
000124 00                          66+          DC    B'00000000'     .     STATUS BYTE             56000028
000125 000000                      67+          DC    AL3(0) .           CSW CCW ADDRESS            57000028
000128 090000C800000050            68 PRTCCW    CCW   9,OUT,X'00',80     PRINT A LINE CCW
                                   69 SKIP      CCB   SYSLST,SKIPCCW
                                   70+* SUPVR COMMN MACROS - CCB - 5745-SC-SUP - REL. 28.0              07100028
000130 0000                        71+SKIP      DC    XL2'0' .           RESIDUAL COUNT             49000028
000132 0000                        72+          DC    XL2'0'      .        COMMUNICATIONS BYTES     50000028
000134 0000                        73+          DC    XL2'0' .           CSW STATUS BYTES           51000028
000136 00                          74+          DC    AL1(0)      .          LOGICAL UNIT CLASS     52000028
000137 03                          75+          DC    AL1(3)     .          LOGICAL UNIT            53000028
000138 00                          76+          DC    XL1'0'                                        54000028
000139 000140                      77+          DC    AL3(SKIPCCW) .     CCW ADDRESS                55000028
00013C 00                          78+          DC    B'00000000'     .     STATUS BYTE             56000028
00013D 000000                      79+          DC    AL3(0) .           CSW CCW ADDRESS            57000028
000140 8B00014000000001            80 SKIPCCW   CCW   X'8B',*,0,1         SKIP TO CHANNEL ONE
                                   81           END
000148 00000130                    82                 =A(SKIP)
00014C 00000118                    83                 =A(CARD)
000150 0000005A                    84                 =A(PRINT)
```

Figure 8.18 (Part 2 of 2

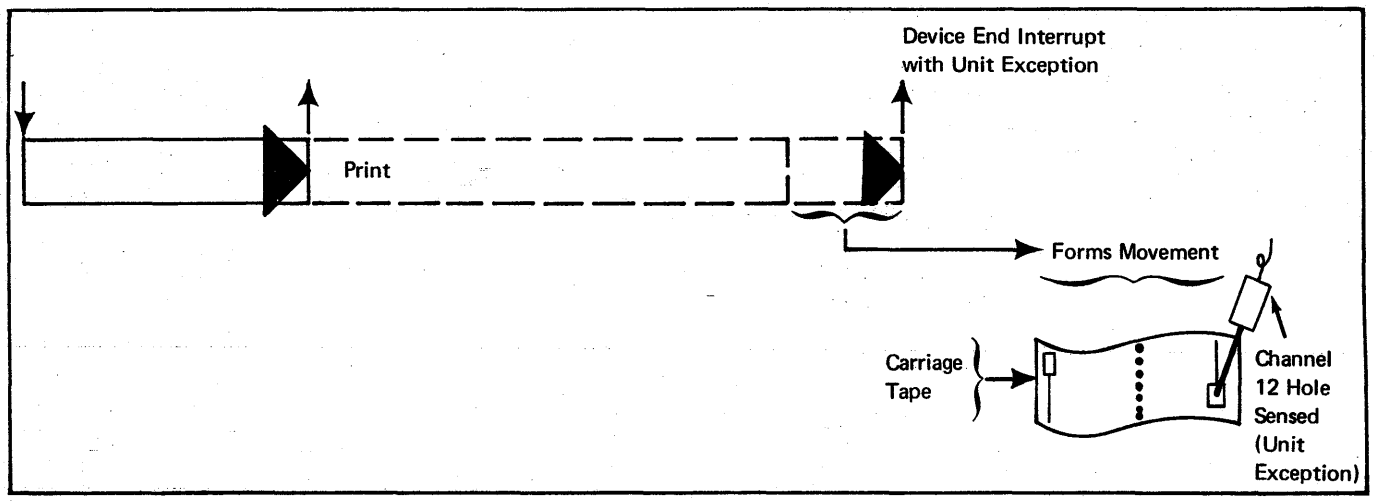


Figure 8.19 1403 Device End With Unit Exception

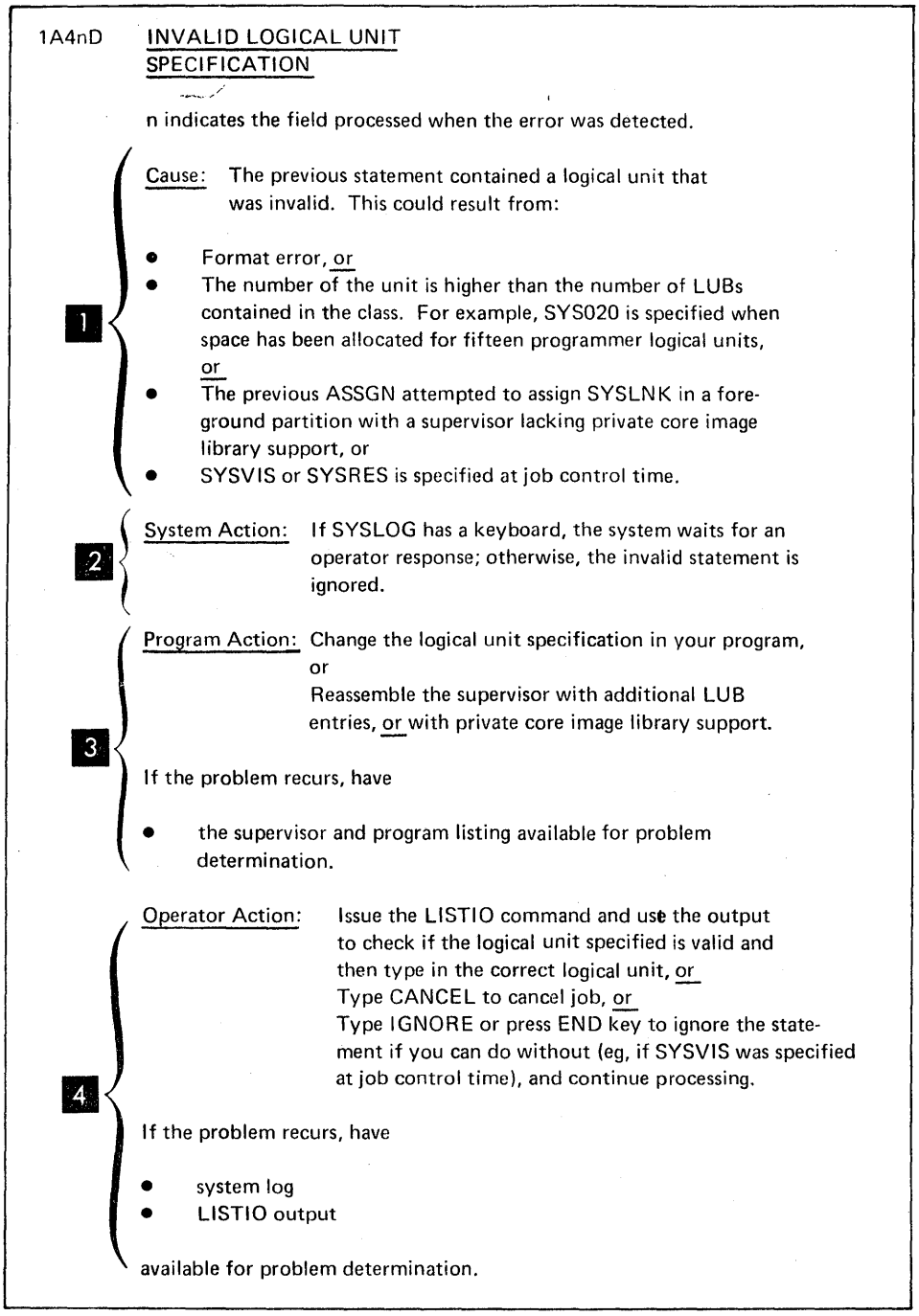


Figure 9.1 Problem Determination Procedures for DOS Messages

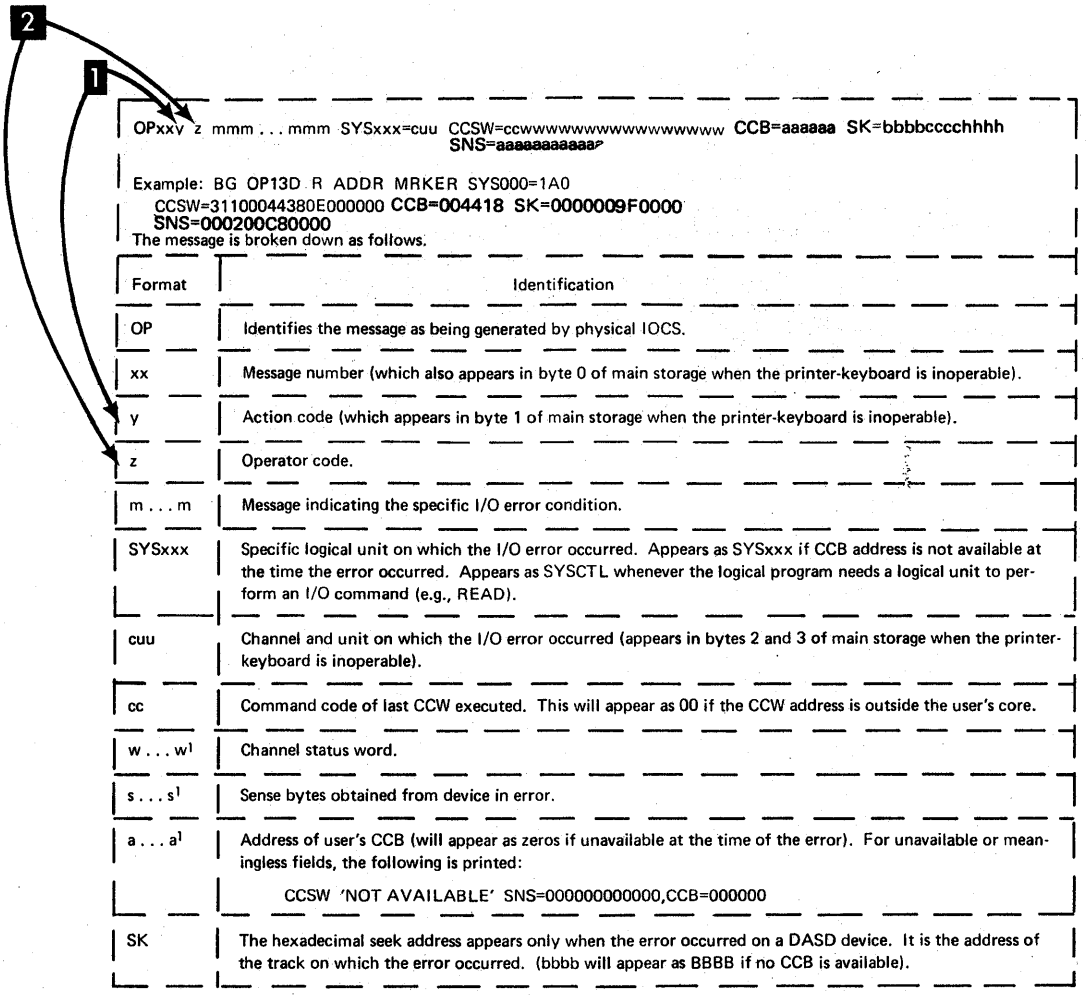


Figure 9.2 0P Messages

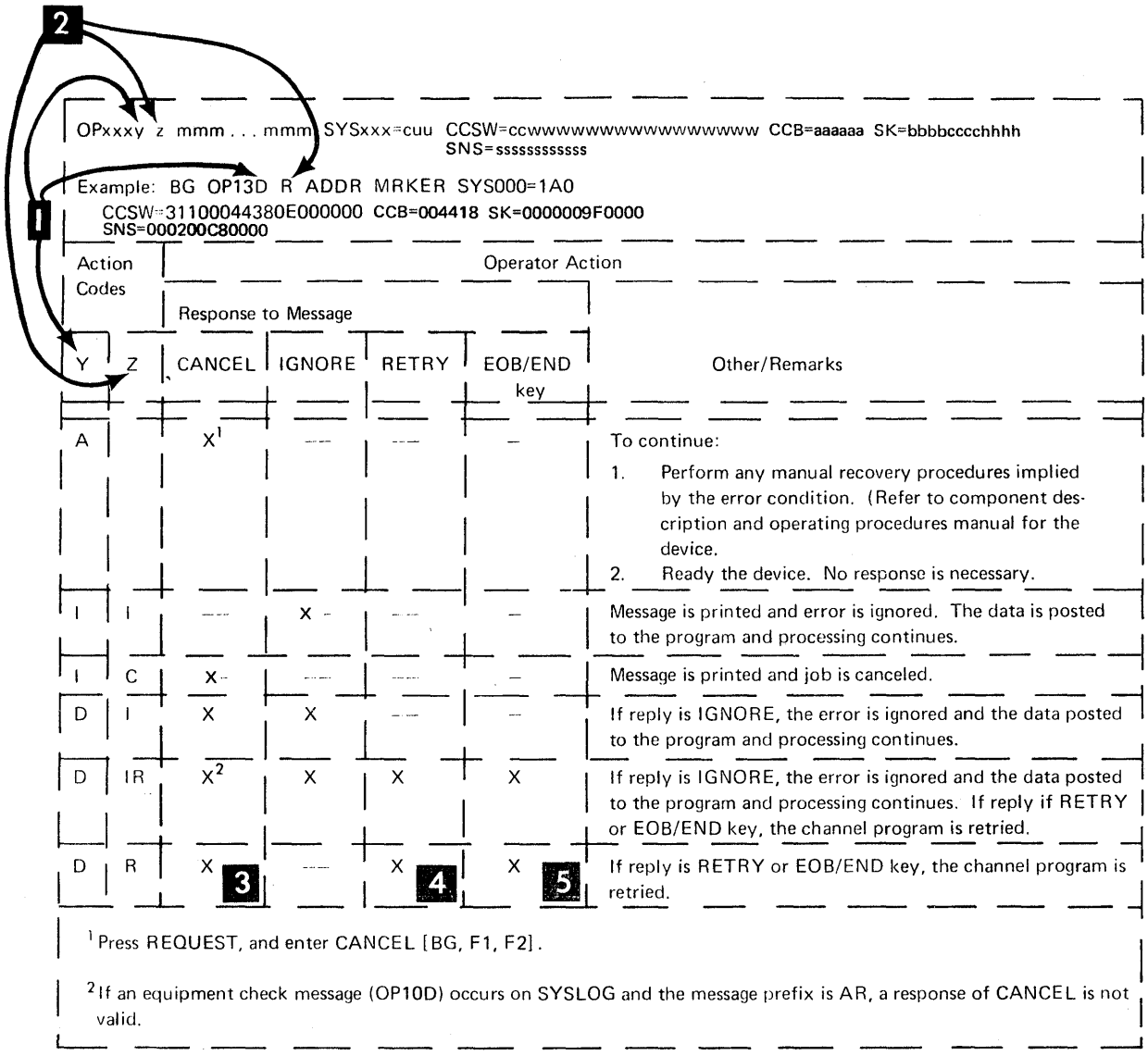


Figure 9.3 Operator Response to System Messages 0Pxxx when Communications Device is a Console Printer-Keyboard

Error Condition Table			
Sense Byte Setting and Name	Explanation of Setting	Type of Error	Recovery Action (See Recovery Action Table)
Byte 0, Bit 0 command reject	1. The 2841 has detected an invalid command code or a command has been given for an uninstalled optional feature. 2. An invalid File Mask has been given. 3. The sum of a key length plus data length exceeds 65535. 4. An IPL command has been given after a Set File Mask. 5. Command Out has been presented in response to the request for the first byte of a Write HA CCW.	Programming	Action 1
Byte 0, Bit 0 command reject Byte 0, Bit 7 seek check	1. The 2841 has detected an invalid seek address. 2. Less than six bytes of seek address were given.	Programming	Action 1
Byte 0, Bit 0 command reject Byte 1, Bit 3 invalid sequence	1. A Write command has not been preceded by the necessary Search or Write command. 2. A Set File Mask, Reserve, or Release command has been issued in a chain in which a previous Set File Mask was given. 3. Head switching due to multi-track or overflow record operation is being attempted in a chain without a previous seek. 4. Space count has been chained from a Write command. 5. A formatting command is being attempted after R0 on a defective track or following a record which is flagged as an overflow record.	Programming	Action 1
Byte 0, Bit 0 command reject Byte 1, Bit 5 file protected	The write inhibit portion of the File Mask has been violated.	Programming	Action 1
Byte 0, Bit 1 intervention required	The direct access device specified by the command is: 1. Not on line or has not been made ready. 2. Not available for use due to a cover open, drive motor off, or some other interlock condition.	Device	Action 2
Byte 0, Bit 2 bus out parity	The 2841 has detected an error in the data coming from the CPU.	Device	Action 2
Byte 0, Bit 3 equipment check Byte 2, Bit 0 unsafe	The 2841 has detected a malfunction in an attached device.	Device	Action 2
Byte 0, Bit 3 equipment check Byte 2, Bit 2 serializer check	A bit has been lost or gained while converting data from parallel to serial form during a write operation.	Device	Action 2
Byte 0, Bit 3 equipment check Byte 2, Bit 4 2841 ALU check	The micro program has detected an equipment malfunction.	Device	Action 2
Byte 0, Bit 3 equipment check Byte 2, Bit 5 unselected status	One of the status lines from a device is on when the device is not selected.	Device	Action 2
Byte 0, Bit 4 data check	A data check has been detected by the 2841 in the data area, key area, or home address area received from the direct access storage device used in the operation.	Device	Action 11 (for 2311, 2302, and 2303) Action 6 (for 2321 only)
Byte 0, Bit 4 data check Byte 1, Bit 0 data check in count area	A data error has been detected by the 2841 in the count area received from the addressed direct access storage device.	Device	Action 11 (for 2311, 2302, and 2303) Action 6 (for 2321 only)
Byte 0, Bit 5 overrun	1. A chained CCW was received too late to be properly executed. 2. Channel response was too slow during data transfer.	Device	Action 3

Figure 9.4 (1 of 3) Error Recovery Procedures (DISK)

Error Condition Table			
Sense Byte Setting and Name	Explanation of Setting	Type of Error	Recovery Action (See Recovery Action Table)
Byte 0, Bit 6 track condition check	1. Any single track command other than Search HA, Read HA, or Read R0 has been executed on a defective track. 2. Command chaining and multi-track command bits indicate that operations on an alternate track are to continue on the next sequential track.	Programming	Action 7
Byte 0, Bit 6 track condition check Byte 1, Bit 7 overflow incomplete	An overflow operation has been attempted either to a flagged defective track or from an alternate track.	Programming	Action 7
Byte 0, Bit 7 seek check	Direct access device has failed to complete a seek due to: 1. The access mechanism has failed to position. 2. A home address compare is unsuccessful after automatic head switching during a multi-track operation.	Device	Action 3 (for 2303) Action 4 (for 2311 and 2302) Action 8 (for 2321)
Byte 0, Bit 7 seek check Byte 1, Bit 6 missing address marker	A ballast cell was located by the 2321	Operator or Device	Action 1
Byte 0, Bit 7 seek check Byte 1, Bit 7 overflow incomplete	An overflow to a wrong track has occurred. Head number compare failed.	Device	Action 4
Byte 1, Bit 1 track overrun	Writing has not been completed by the time the index marker is detected.	Programming	Action 1
Byte 1, Bit 2 end of cylinder	An end of cylinder condition was detected during a multi-track operation before the CCW chain was complete.	Programming	Action 1
Byte 1, Bit 4 no record found Byte 1, Bit 6 not present	Two index markers were detected during a CCW chain with no read or write operation being performed on any home address or data area of any record. During a Search command chain, this could be expected to happen and appropriate file masks should be used.	Programming	Action 10
Byte 1, Bit 4 no record found Byte 1, Bit 6 missing address marker	Home address or record R0 cannot be located on the track. This condition can also indicate that a 2321 has failed to pick a strip, or a ballast cell position, other than subcell 0, was accessed and read.	Operator or Device	Action 9
Byte 1, Bit 5 file protect	The 2841 has detected a Seek, multi-track Read, or multi-track Search command that violates the seek portion of the File Mask.	Programming	Action 1
Byte 1, Bit 5 file protect Byte 1, Bit 7 overflow incomplete	An overflow was attempted to a file-protected area.	Programming	Action 1
Byte 1, Bit 6 missing address marker	The 2841 has detected two successive count areas with identical bit settings in bit 0 of the flag byte.	Device	Action 5 (for 23[illegible], 2302, and 2303) Action 6 (for 2321 only)

Figure 9.4 (2 of 3) Error Recovery Procedures (DISK)

Action Number	Recovery Action Table
1.	Exit from program and indicate that a program error occurred. In some cases, the programmer may wish to exit to a special recovery procedure.
2.	Repeat the sequence once. If the error condition persists, print error message 1 of the error messages shown at the end of this table.
3.	Repeat the failing sequence for up to ten times. If the error condition persists for ten retries, print error message 1.
4.	Issue a recalibrate command (the 2302 will require a seek to cylinder 251 followed by a seek to cylinder 000). Seek the original address. Repeat the failing sequence for up to ten times. If the error condition persists for ten retries, print error message 1, and exit from the program and indicate that a data error occurred.
5.	Repeat the failing sequence for up to ten times. If the error condition persists for ten retries, the data error is considered to be a "hard" error. At this point it may be necessary to reconstruct the record. Therefore, print error message 1, exit from program to recovery routine, and indicate that a data error occured.
6. for 2321 only	a. Repeat the failing sequence for up to eight times. b. Seek to X-X-X-4-19 (the last track of a strip) followed by a seek to X-X-X-0-0 (the first track of a strip). Repeat this pair of seek commands eight times. c. Reissue the original seek and repeat the sequence that failed for two more times. If the error persists, and the total number of retries is not a multiple of 32, repeat steps b. and c. d. Each time the number of retries is a multiple of 32, issue a seek to the strip with the next lower address; in the case of strip 00000, issue a seek to the next higher addressed strip. After completing this (d.) return to c. e. If the error condition persists for 226 retries of the failing sequence, the error is considered to be hard.
7.	If this is an alternate track, use the address of the defective track, plus one, for a new seek address. The address of the defective (original) track can be found in the identifier portion of the R0 count area. Resume the operation after seeking to the correct address. If this is a defective track, issue a seek command containing the address of the proper alternate track. The address of the alternate track can be found in the identifier portion of R0. Resume the operation after seeking to the correct address.
8. for 2321 only	a. Issue one or more seek commands to an address containing subcell, strip, and head position bytes which are different from the corresponding bytes in the original address. b. Issue a seek command to the original address. c. Repeat a. and b. for ten times if the sequence continues to fail. d. If the error condition persists, print error message 1.
9.	a. 2311 - Issue a recalibrate and then a seek to the original address. 2321 - Issue a restore and then a seek to the original address. 2302 - Issue a seek to cylinder 251 followed by a seek to cylinder 000 and then a seek to the original address. 2303 - Go to step b. b. Repeat the sequence that failed. c. Repeat a. and b. two times if the error condition persists. d. Issue a read home address command to a different track but within the same cylinder. e. If the read home address command is successful, return to the original track and perform action number three. f. If the read home address command is unsuccessful after two retries and the original error is repeated, print error message number one.
10.	a. Issue a read home address command to verify that the correct track has been located. (Correct cylinder will suffice for multi-track operation). b. If the location is correct, perform action 1. c. If the location is not correct, perform action 4. (for 2311 and 2302) d. If the location is not correct (for a 2321): (1). If the track is not correct, issue one or more seek commands to an address containing subcell, strip, and head position which are different from the corresponding bytes in the original address. (2). Issue a seek command to the original address. (3). Repeat the sequence that failed. (4). Repeat steps a.,b., and d. ten times if the sequence continues to fail. If the error condition persists, do step 5. (5). If the error condition persists, do action 1.
11.	a. Repeat the original sequence 16 times if error persists. b. After 16 unsuccessful retries, issue instructions to recalibrate (See action 9 step a.) and then seek to the original cylinder. Repeat a then b 16 times if error persists. c. After 16 unsuccessful retries of b, the data error is said to be "permanent". At this point, the permanent error recovery operations may be employed at user option. d. Print message 1 and exit with data error indication and option information.

Figure 9.4 (3 of 3) Error Recovery Procedures (DISK)

	CSW Status Byte	Sense Byte 0	Sense Byte 1	Sense Byte 2	Sense Byte 3				Sense Byte 4	Sense Byte 5*
					2311	2321	2302	2303		
Bit 0	Attention	Command Reject	Data Check in Count Area	Unsafe	Ready	Drive Ready	Access Ready	Drum Ready	0	
Bit 1	Status Modifier	Intervention Required	Track Overrun	not used	On Line	Drive Operative	Access Operative	Drum Operative	0	
Bit 2	Control Unit End	Bus-Out Parity	End of Cylinder	Serializer Check	Unsafe	Read Safety	Read Safety	Read Safety	0	
Bit 3	Busy	Equipment Check	Invalid Sequence	not used	not used	Write Safety	Write Safety	Write Safety	0	See Note
Bit 4	Channel End	Data Check	No Record Found	ALU Check	On Line	Strip Ready	On Line	Ready	0	
Bit 5	Device End	Overrun	File Protected	Unselected File Status	End of Cylinder	Invalid Address	not used	not used	0	
Bit 6	Unit Check	Track Condition Check	Missing Address Marker	not used	not used	Auto Restore	not used	not used	0	
Bit 7	Unit Exception	Seek Check	Overflow Incomplete	not used	Seek Incomplete	C.E. Cell Located	C.E. Cylinder Located	not used	0	

*Sense Byte 5 is used only for the overflow feature. The setting of the bits is determined by the conditions existing at the time of the interruption and the type of operation in progress. For further information on the bit configurations, refer to the description in the text of the manual.

Figure 9.5 (Status and Sense Bytes) (DISK)

COMMAND		COMMAND CODE						DATA ADDRESS	COUNT
		Single Track Operations			Multiple Track Operations				
		Decimal	Hexadecimal	Binary	Decimal	Hexadecimal	Binary		
Control	No Op	03	03	0000 0011				X	Not Zero
	Seek	07	07	0000 0111				CPU storage location of seek address	6
	Seek Cylinder	11	0B	0000 1011					6
	Seek Head	27	1B	0001 1011					6
	Set File Mask	31	1F	0001 1111				CPU storage location of mask byte	1
	Space Count	15	0F	0000 1111				X	Not Zero
	Transfer in Channel	X8	X8	XXXX 1000				CPU storage location of next CCW- (Must be divisible by 8.)	X
	Recalibrate	19	13	0001 0011				X	Not Zero
	Restore	23	17	0001 0111					
Sense	Sense I/O	04	04	0000 0100				CPU storage location to which six sense bytes are sent	6
Switching	Release Device	148	94	1001 0100				X	Not Zero
	Reserve Device	180	B4	1011 0100				X	Not Zero
Search	Home Address Equal	57	39	0011 1001	185	B9	1011 1001	CPU storage location of search argument	4 (usually)
	Identifier Equal	49	31	0011 0001	177	B1	1011 0001		5 (usually)
	Identifier High	81	51	0101 0001	209	D1	1101 0001		5 (usually)
	Identifier Equal or High	113	71	0111 0001	241	F1	1111 0001		5 (usually)
	Key Equal	41	29	0010 1001	169	A9	1010 1001		From 1 to 255
	Key High	73	49	0100 1001	201	C9	1100 1001		From 1 to 255
	Key Equal or High	105	69	0110 1001	233	E9	1110 1001		From 1 to 255
	Key and Data Equal*	45	2D	0010 1101	173	AD	1010 1101		Number of bytes (including mask bytes) in search argument
	Key and Data High*	77	4D	0100 1101	205	CD	1100 1101		
	Key and Data Equal or High*	109	6D	0110 1101	237	ED	1110 1101		
	Continue Scan Eq*	37	25	0010 0101					
	Continue Scan High*	69	45	0100 0101					
	Continue Scan Eq or Hi*	101	65	0110 0101					
	Continue Scan, No Compare*	85	55	0101 0101					
	Continue Scan, Set Compare*	117	75	0111 0101					
Read	Home Address	26	1A	0001 1010	154	9A	1001 1010	CPU storage location to which areas read will be transferred	5
	Count	18	12	0001 0010	146	92	1001 0010		8
	Record R0	22	16	0001 0110	150	96	1001 0110		Number of bytes to be transferred
	Data	06	06	0000 0110	134	86	1000 0110		Number of bytes to be transferred
	Key and Data	14	0E	0000 1110	142	8E	1000 1110		Number of bytes to be transferred
	Count, Key and Data	30	1E	0001 1110	158	9E	1001 1110		Number of bytes to be transferred
	Initial Program load (IPL)	02	02	0000 0010					Number of bytes to be transferred
Write	Home Address	25	19	0001 1001				CPU storage location from which areas to be written will be transferred	5
	Record R0	21	15	0001 0101					8+Key Length+Data Length of Record R0
	Count, Key and Data	29	1D	0001 1101					8+ Key Length + Data Length
	Special Count, Key and Data*	01	01	0000 0001					8+ Key Length + Data Length
	Data	05	05	0000 0101					Data Length
	Key and Data	13	0D	0000 1101					Key Length + Data Length
	Erase	17	11	0001 0001					8 + Key Length + Data Length

* Special Feature
X Not Significant

Figure 9.6 (Command Codes) (DISK)

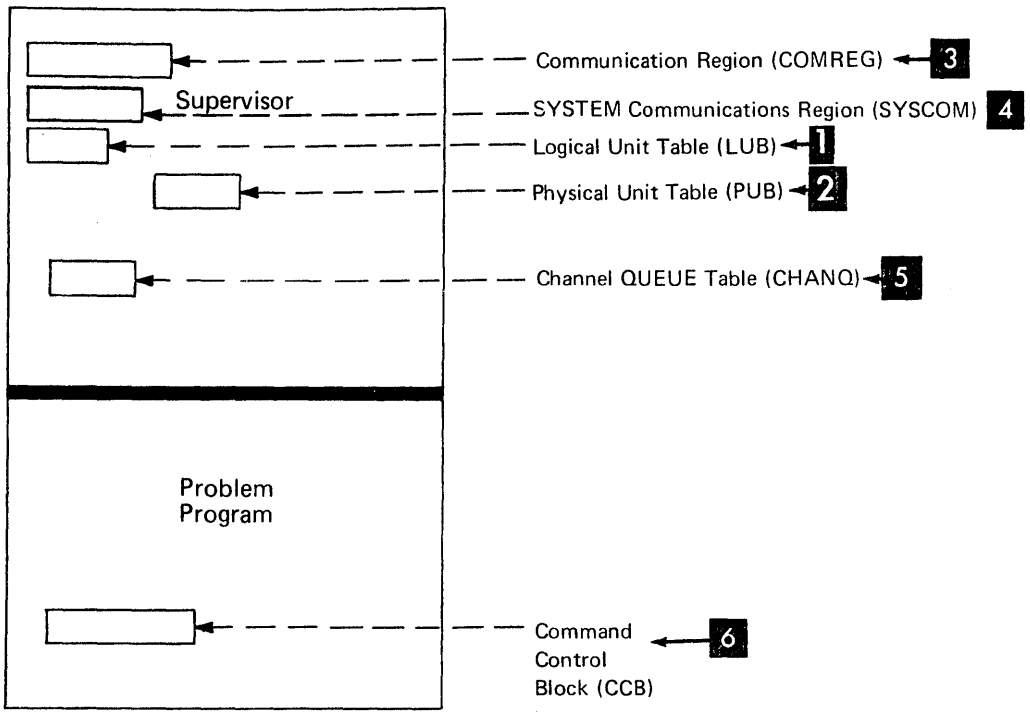
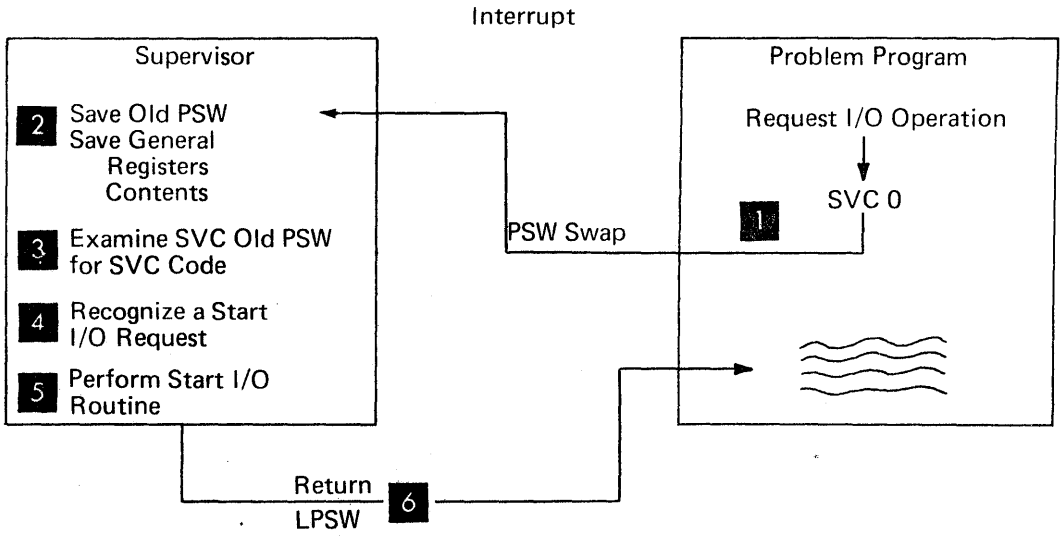


Figure 10.1 I/O Tables and Control Blocks [FE 102757]



[FE 102759]

Figure 10.2 SVC Interrupt and Return

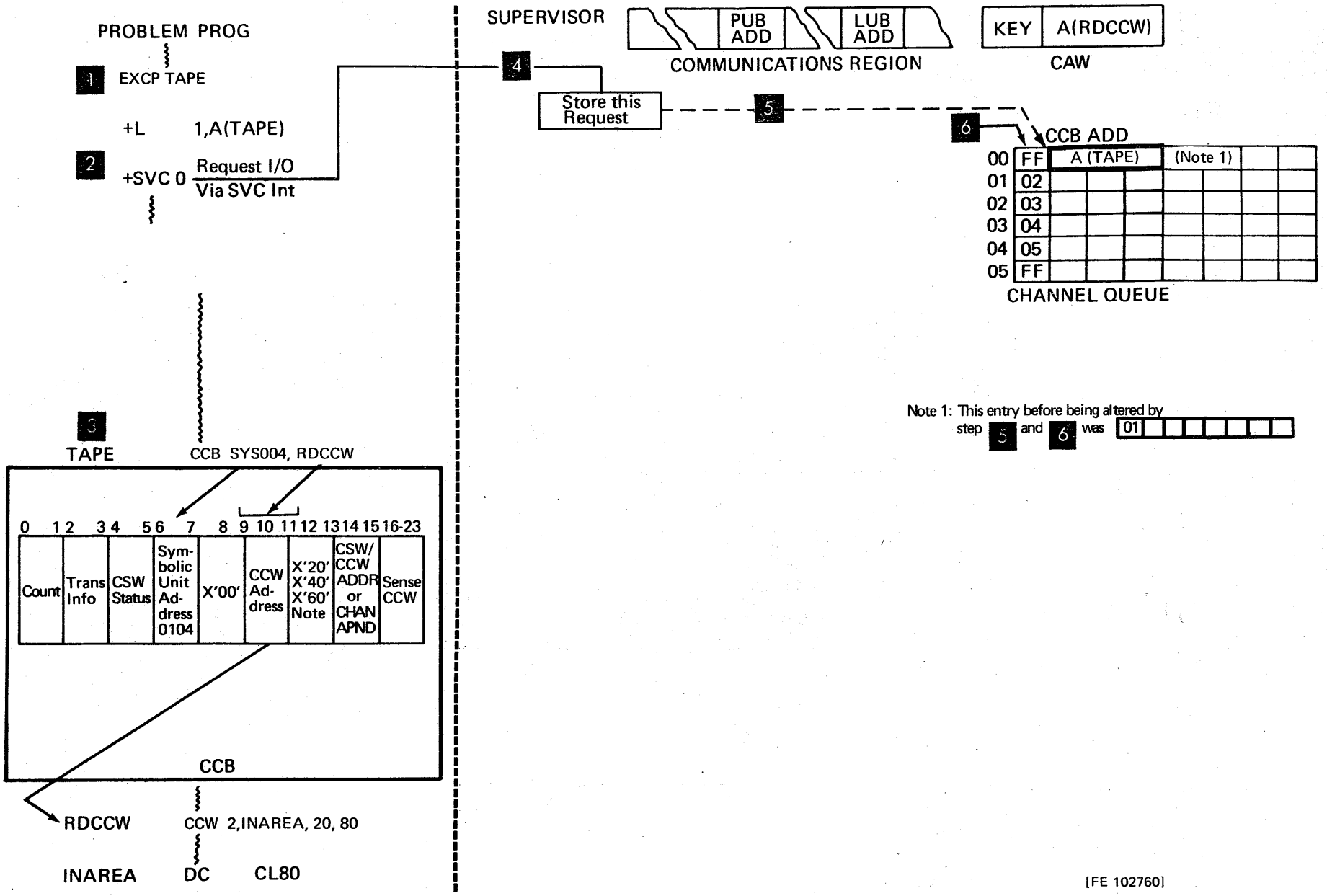


Figure 10.3 Supervisor I/O Request Handling (Linkage)

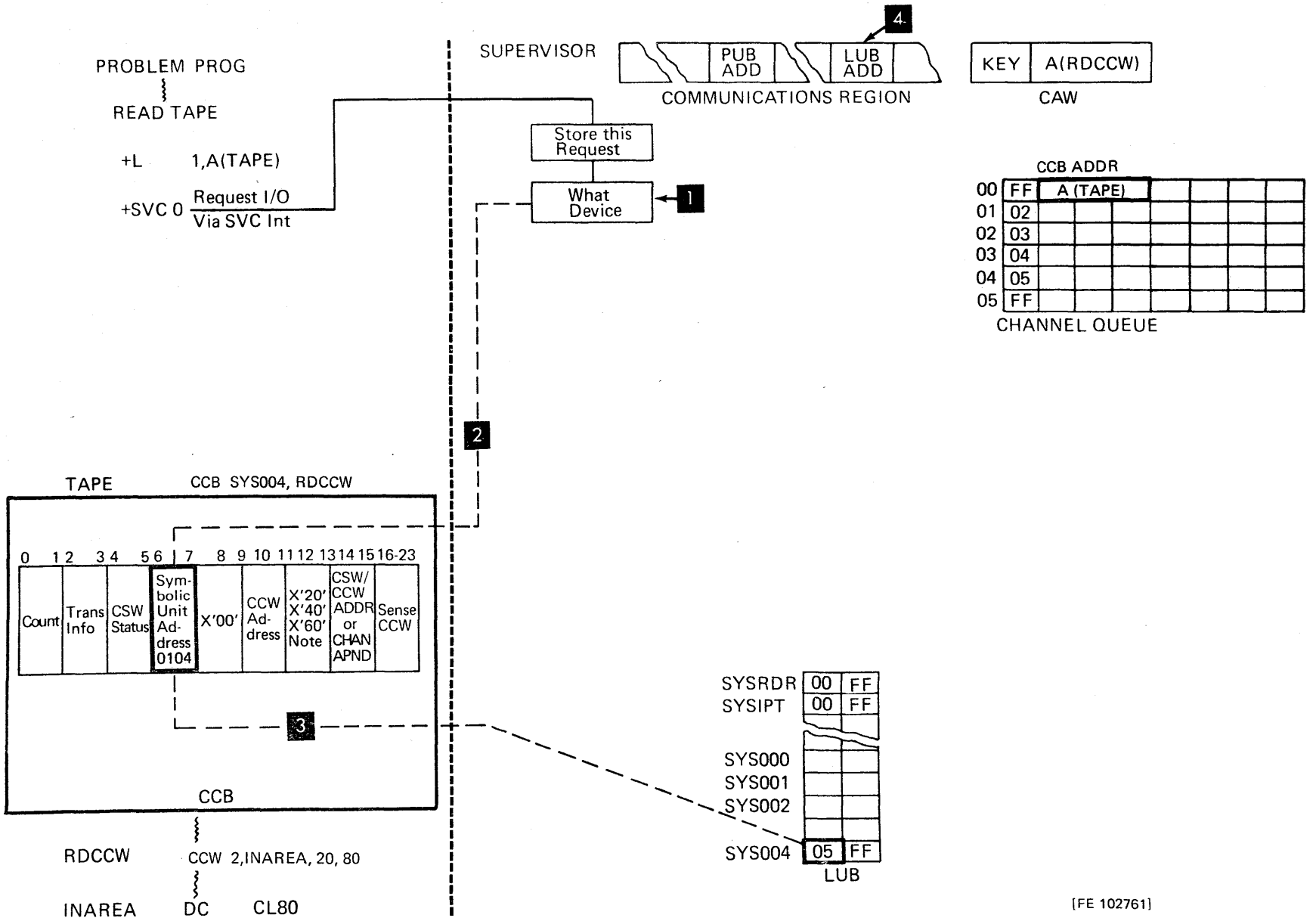


Figure 10.4 Supervisor I/O Request Handling (Symbolic Unit)

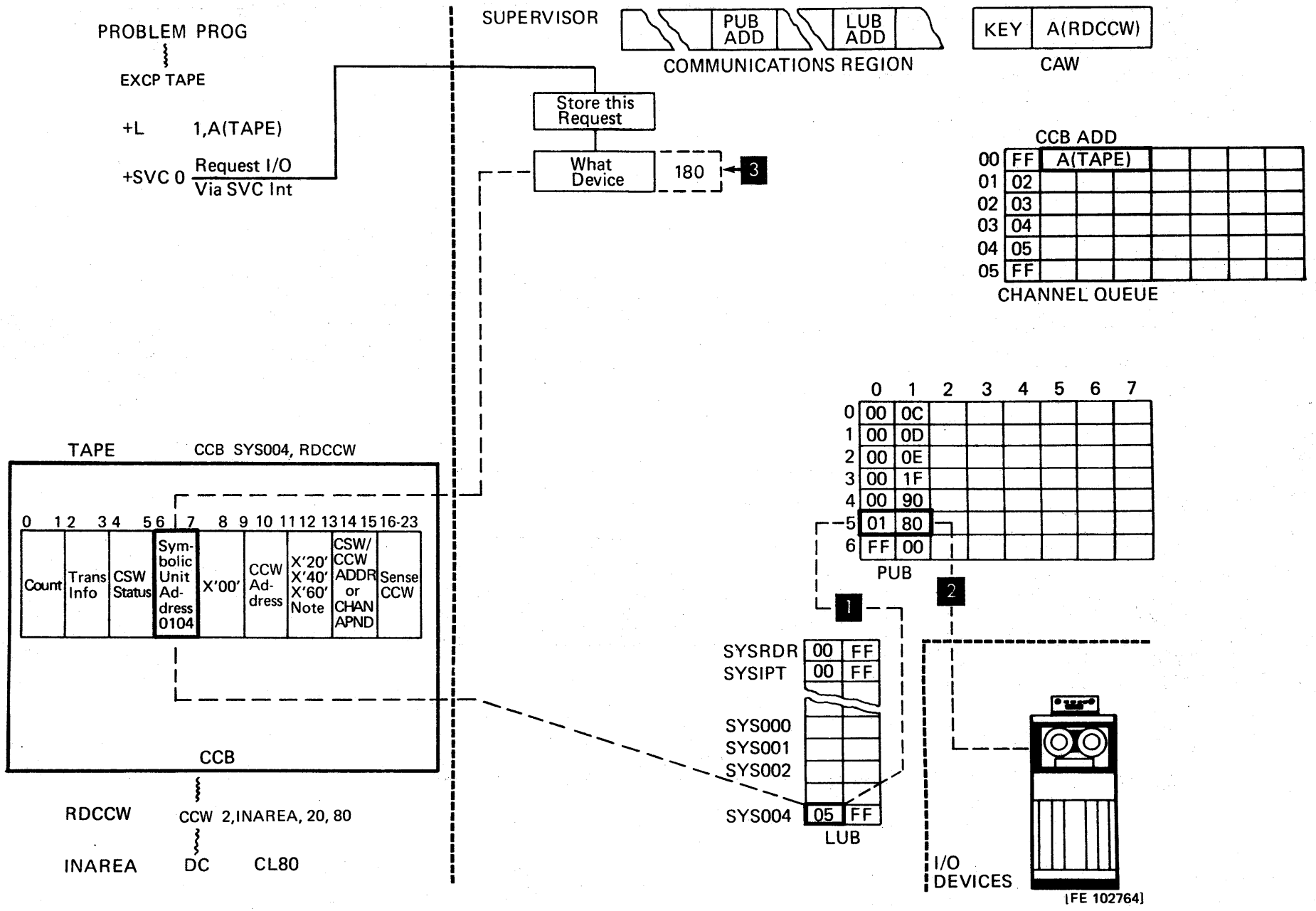


Figure 10.5 Supervisor I/O Request Handling (Physical Device Selection)

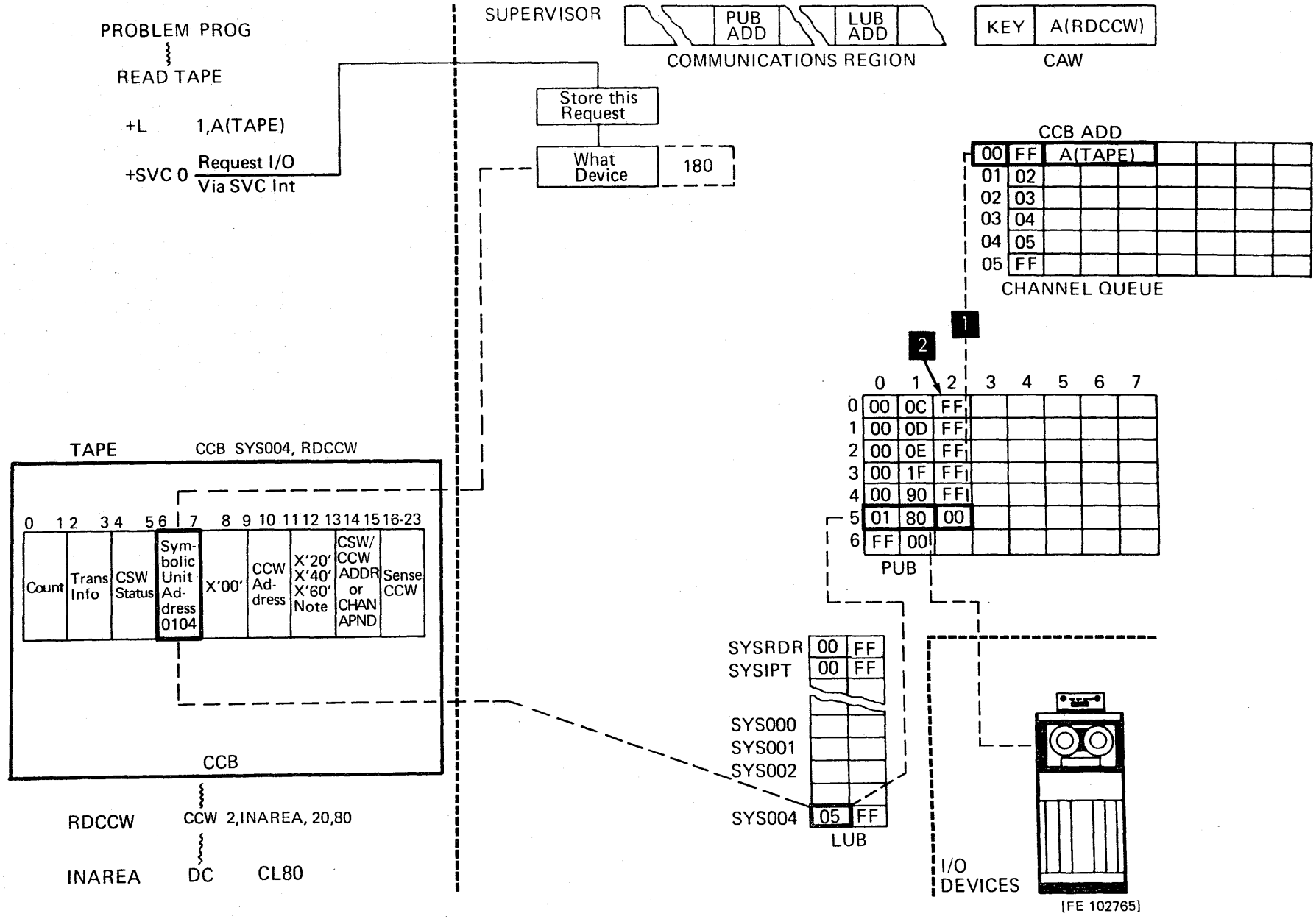


Figure 10.6 Supervisor I/O Request Handling (PUB to CHANQ Tie-in)

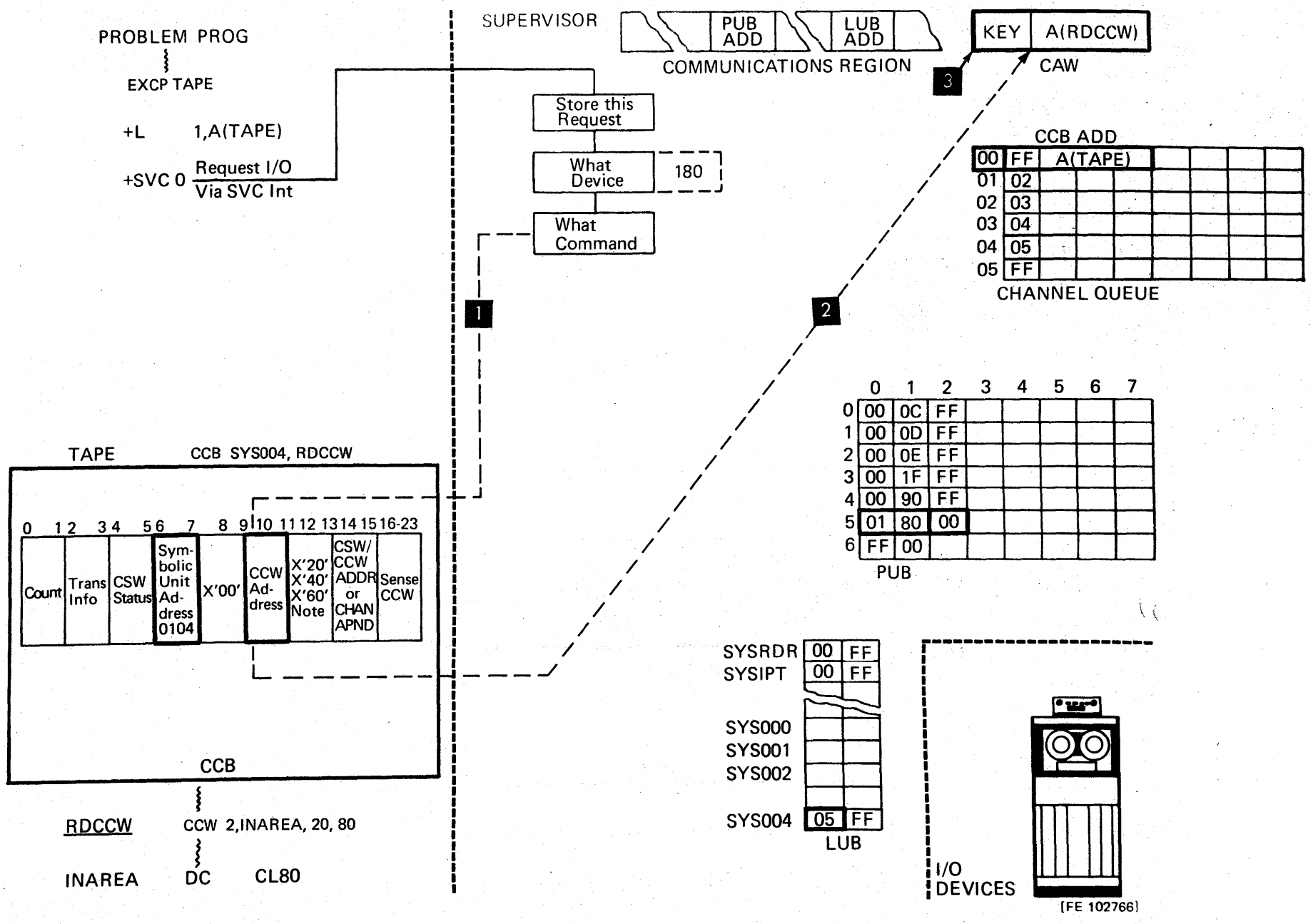


Figure 10.7 Supervisor I/O Request Handling (CAW)

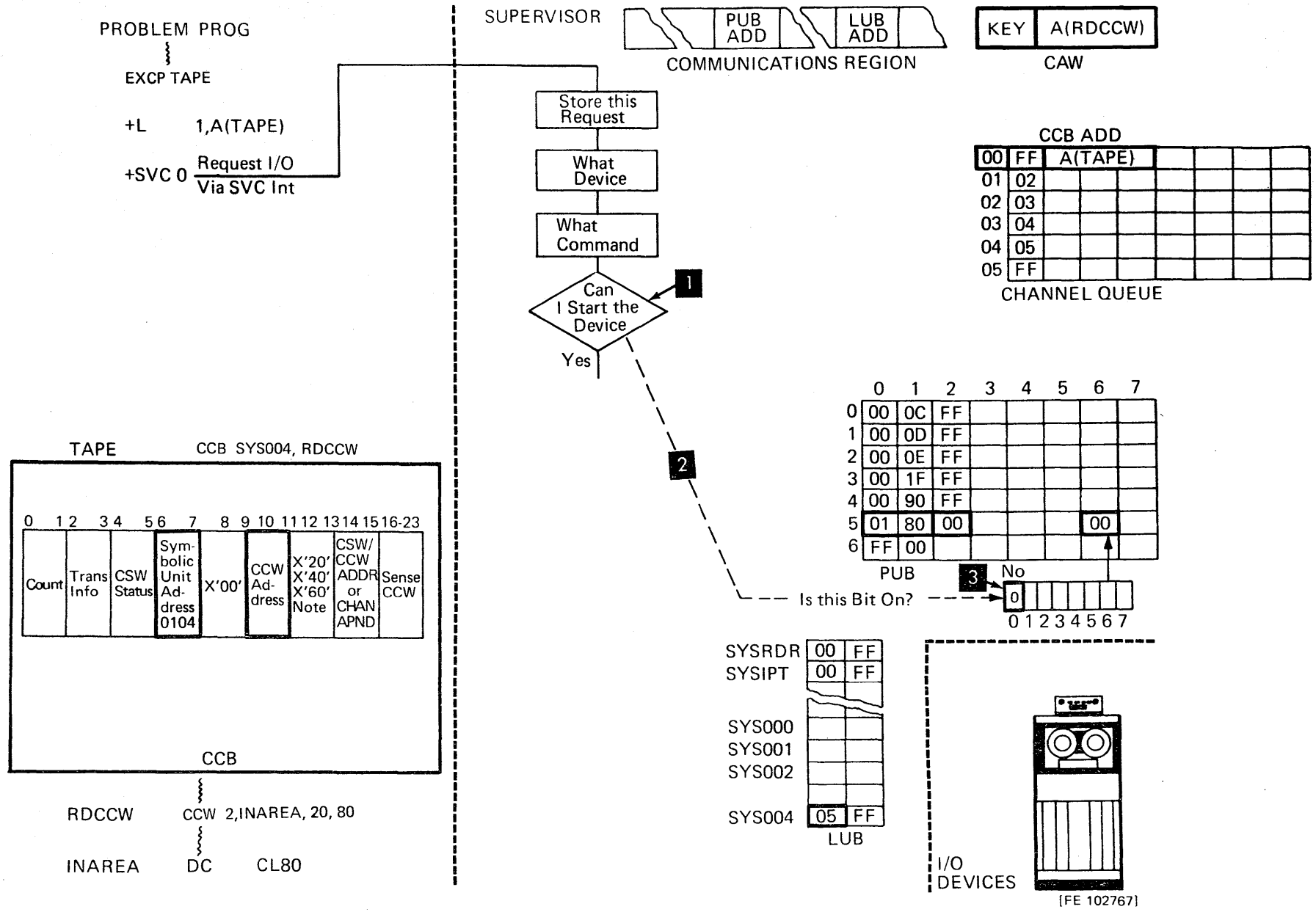


Figure 10.8 Supervisor I/O Request Handling (Device Availability Test)

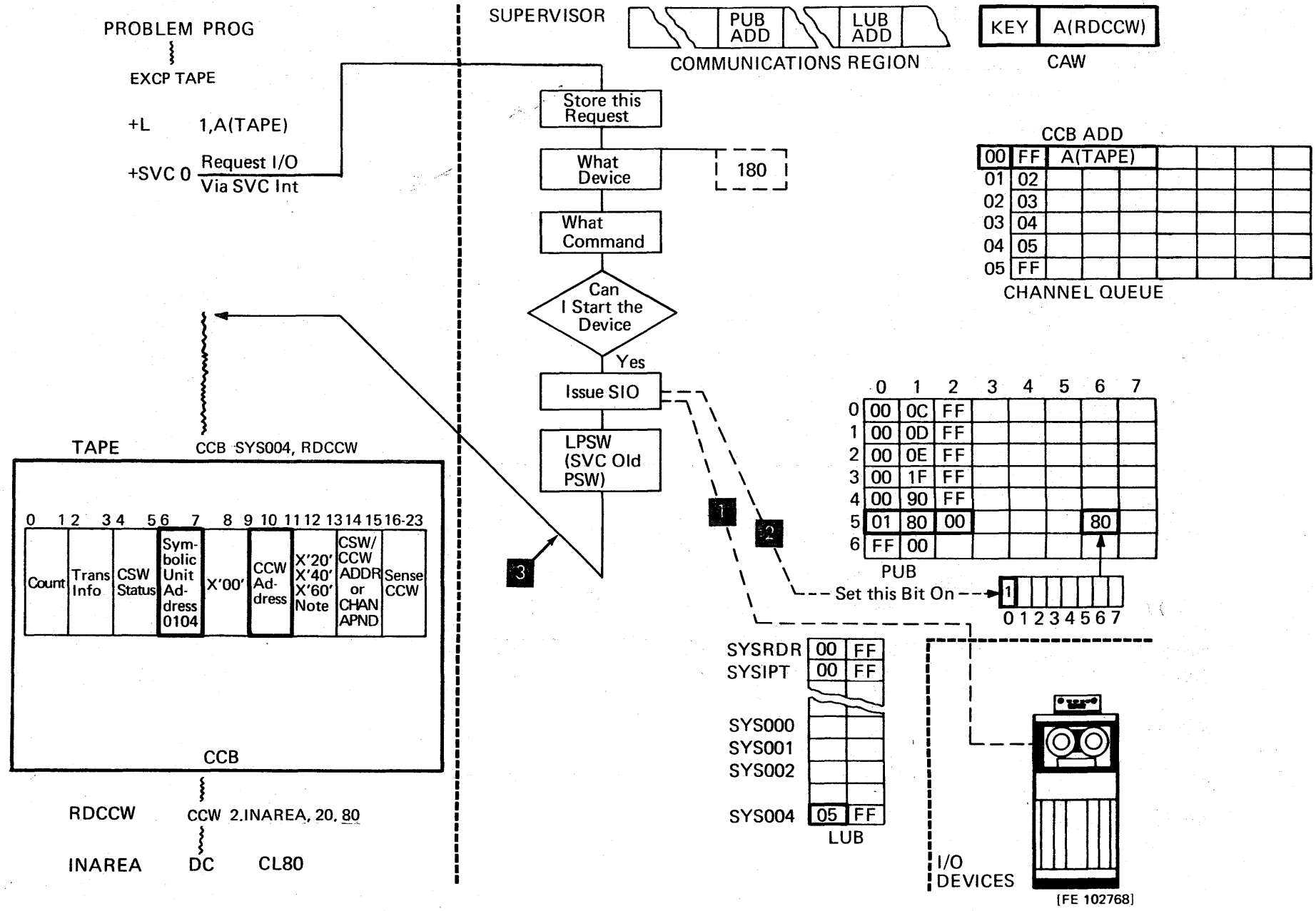


Figure 10.9 Supervisor I/O Request Handling (SIO)

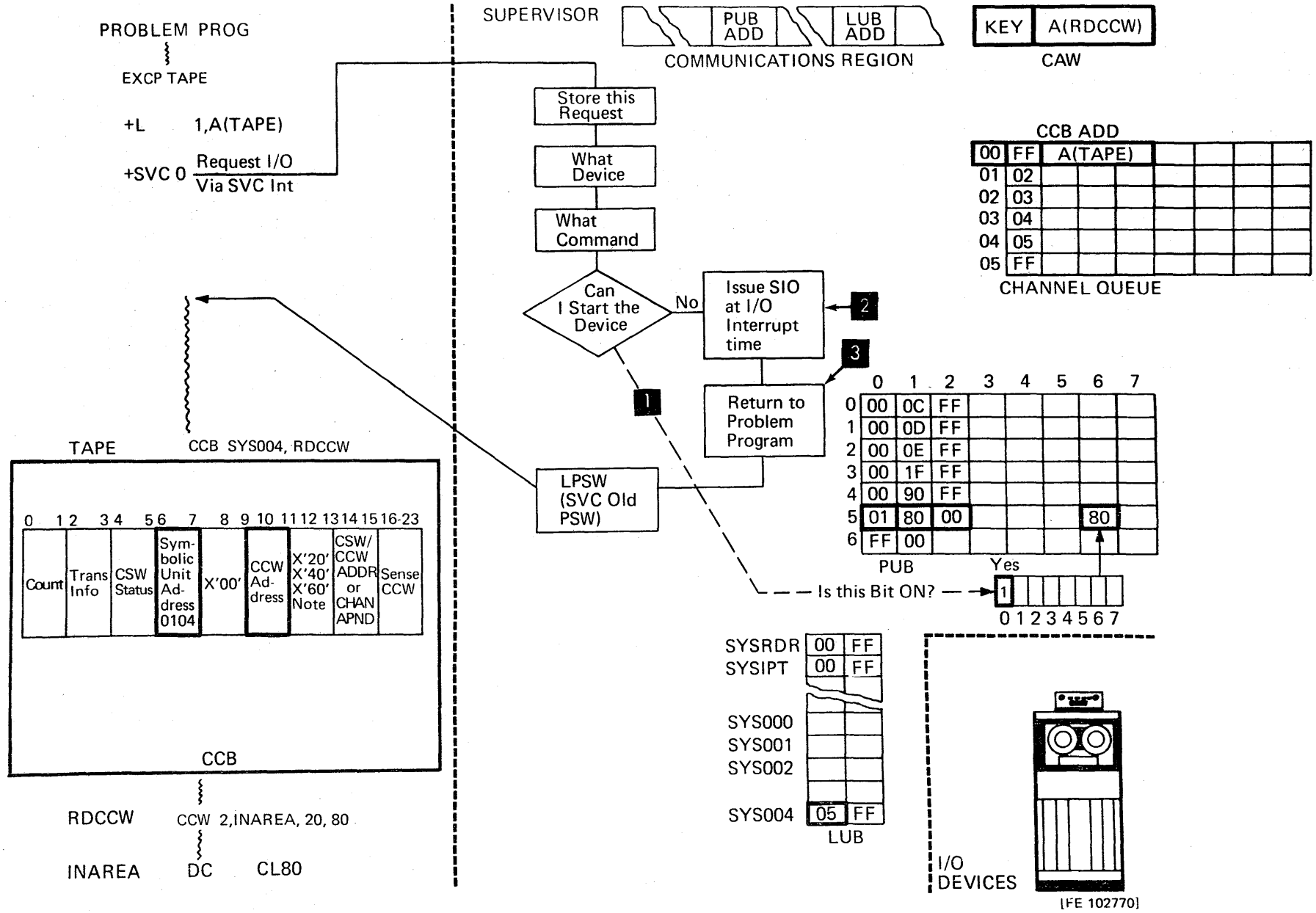


Figure 10.10 Supervisor I/O Request Handling (Device Busy)

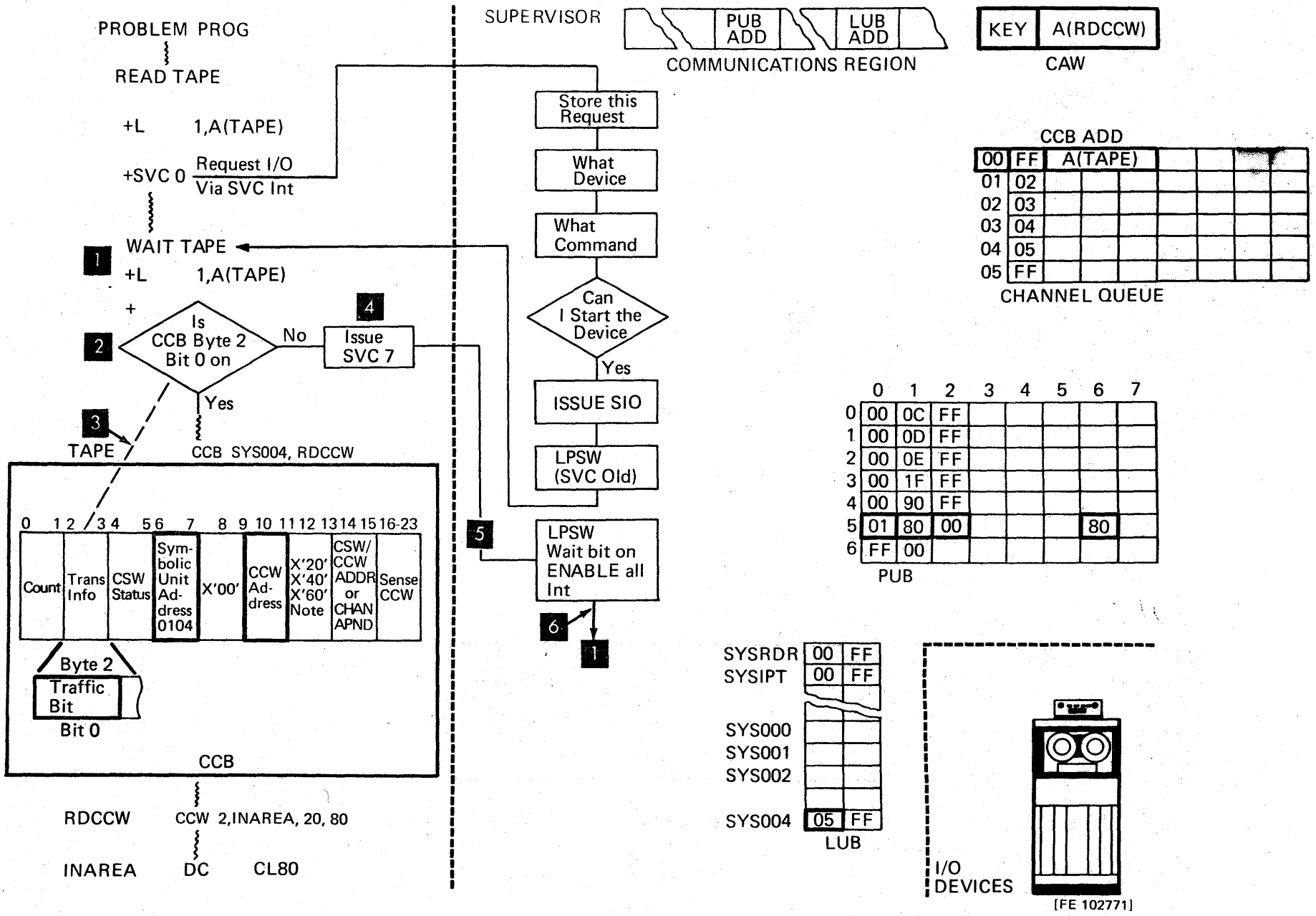


Figure 10.11 Supervisor I/O Request Handling (WAIT Logic)

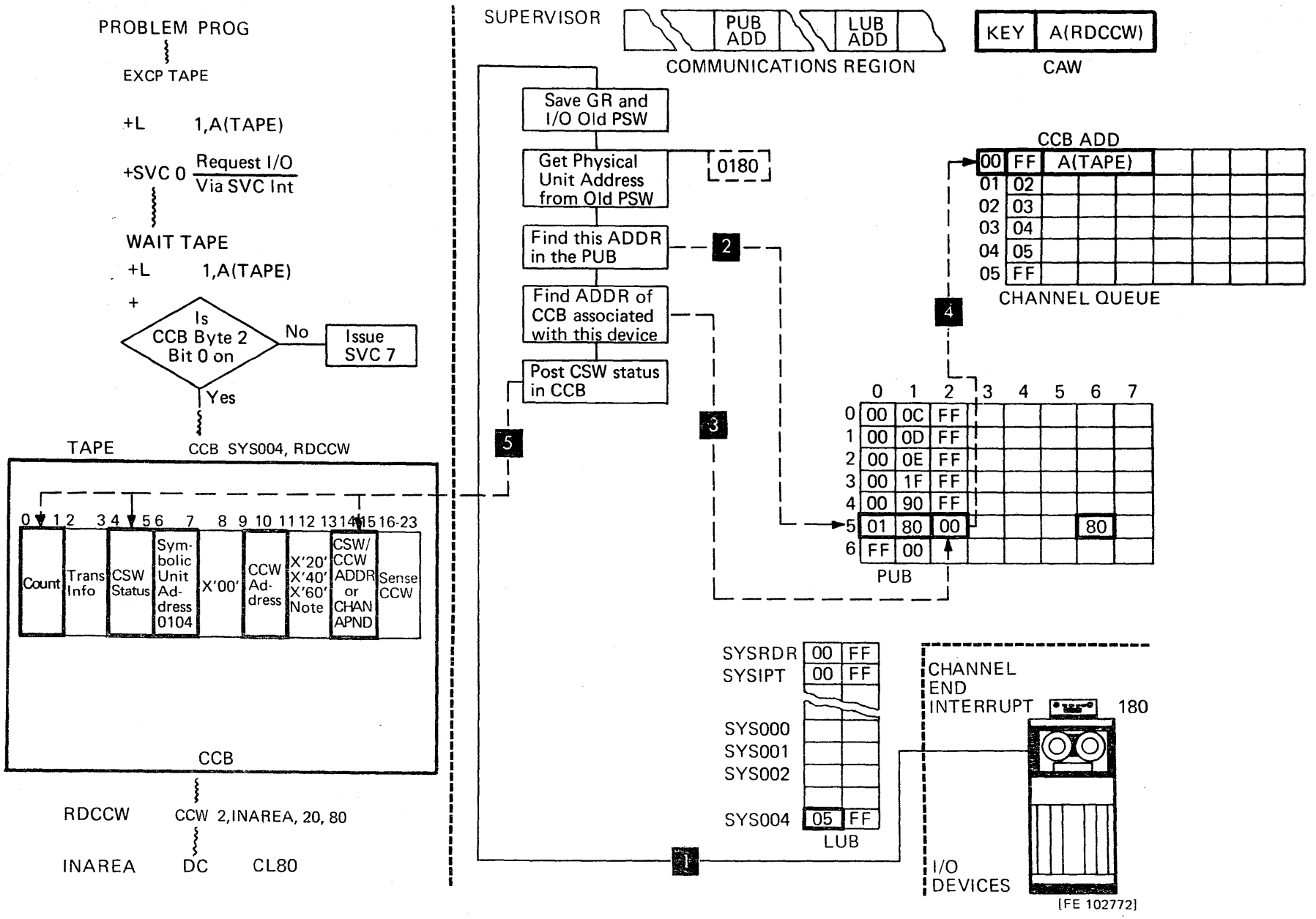


Figure 10.12 Supervisor I/O Request Handling (Channel End Interrupt)

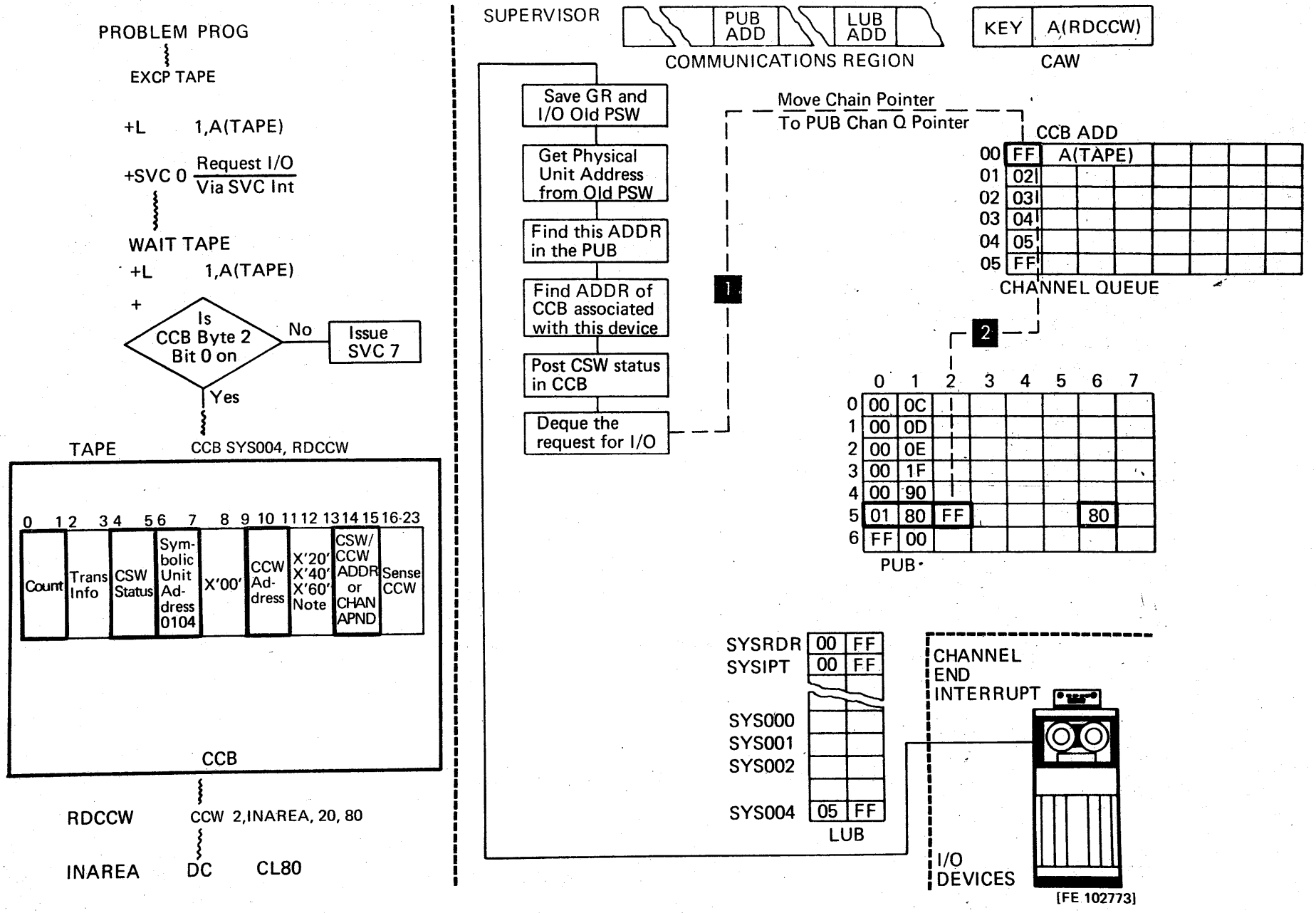


Figure 10.13 Supervisor I/O Request Handling (Dequeue I/O Request)

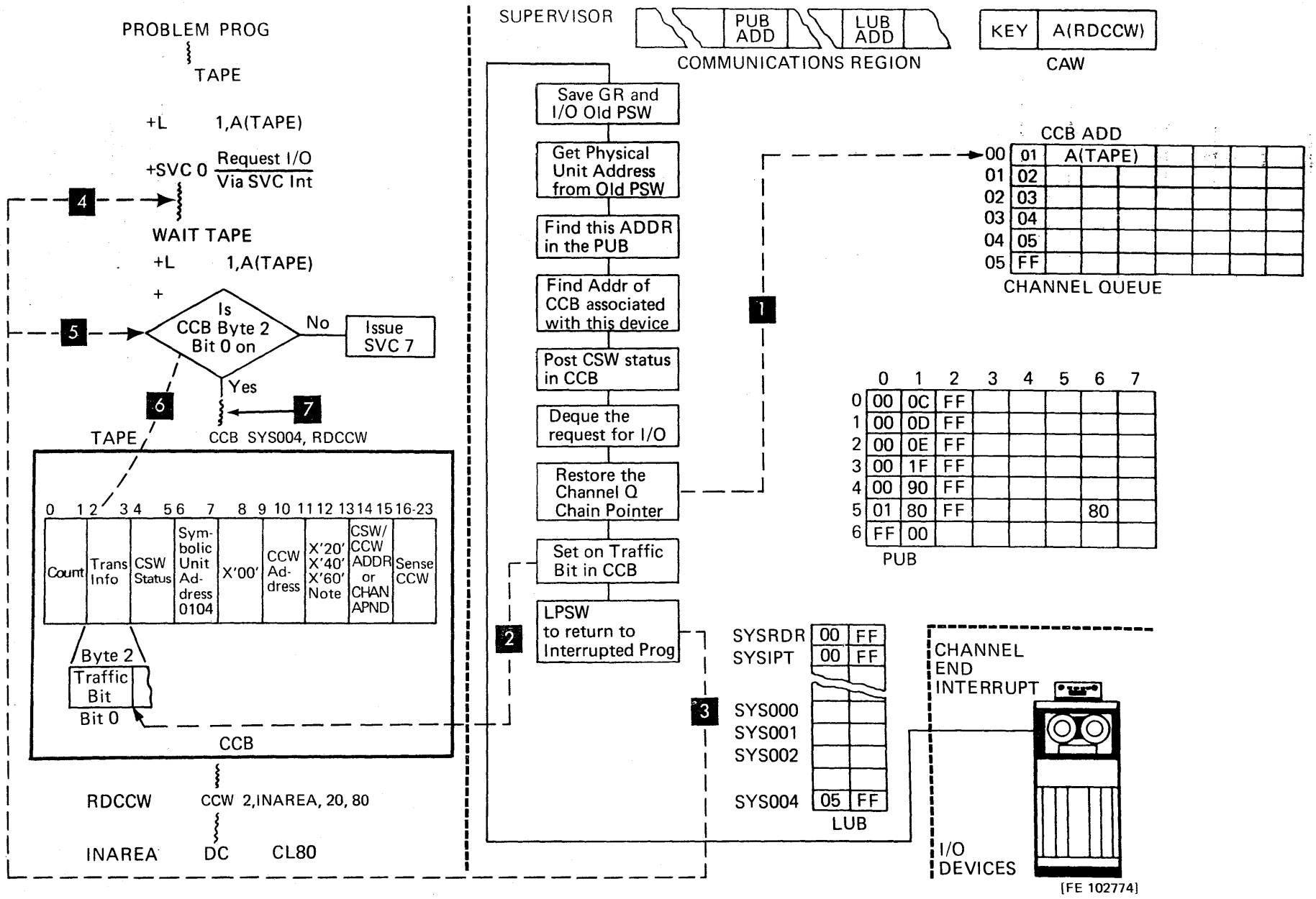


Figure 10.14 Supervisor I/O Request Handling (Completion of Interrupt Processing)

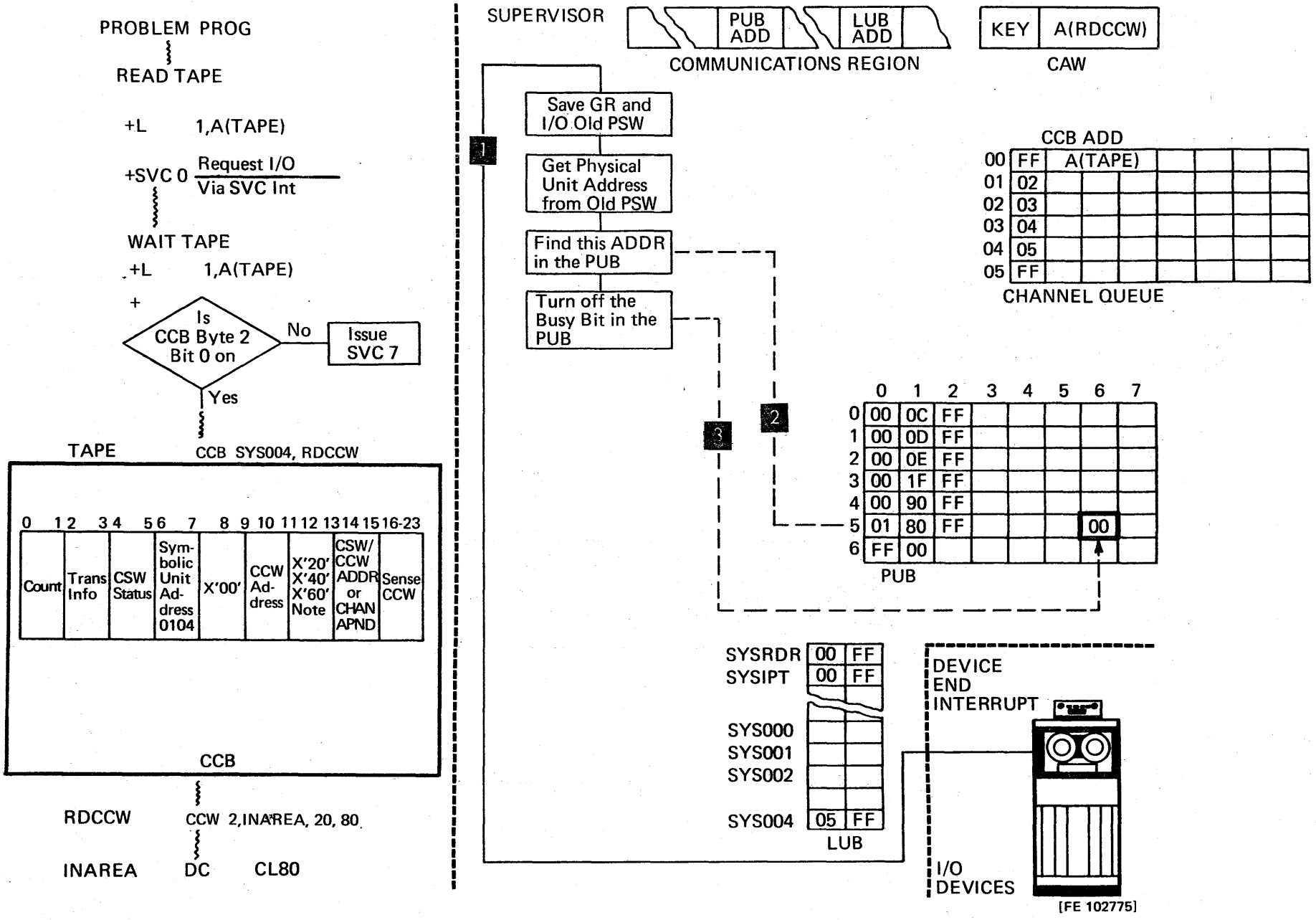


Figure 10.15 Supervisor I/O Request Handling (Device End Interrupt 1 of 2)

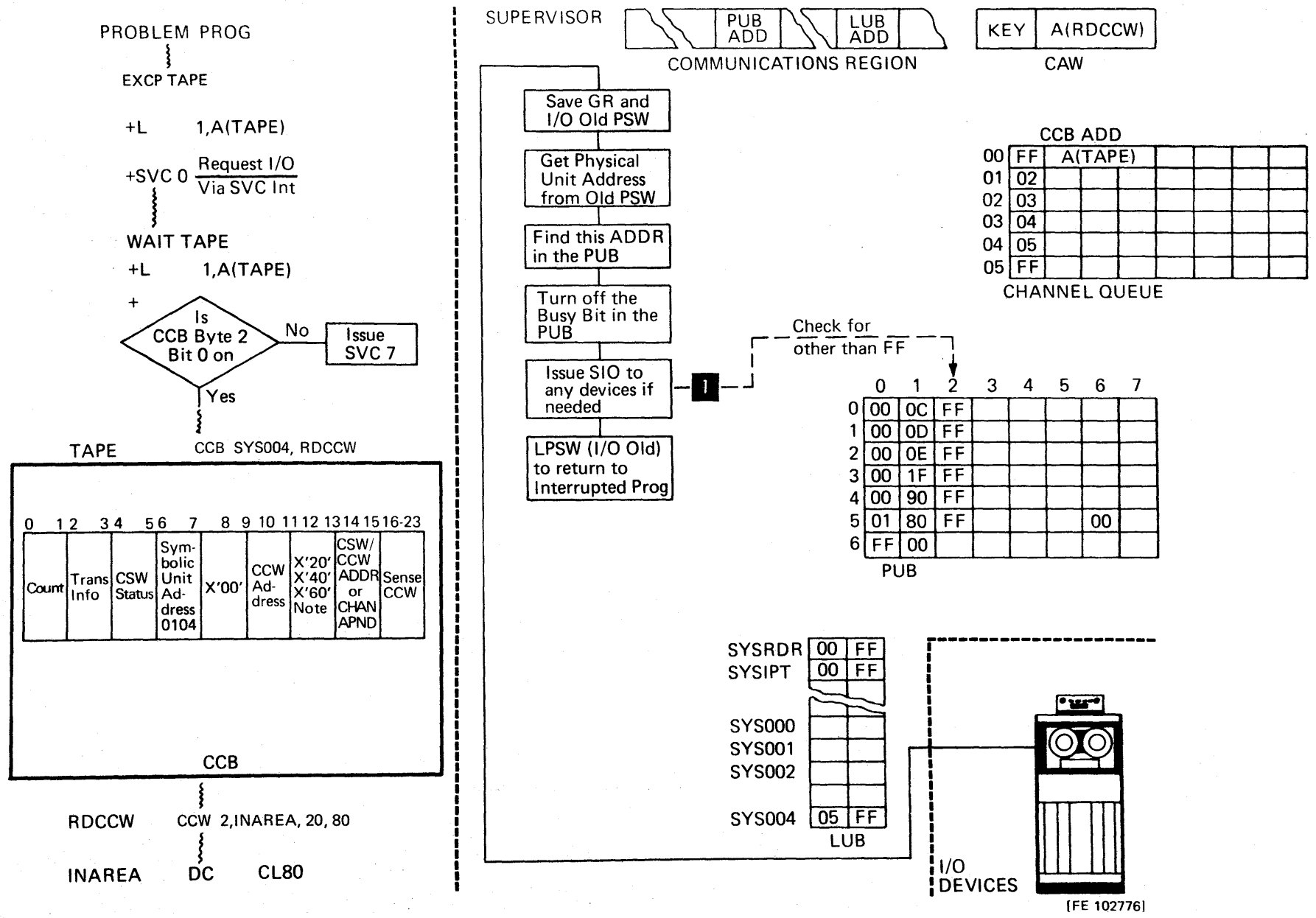


Figure 10.16 Supervisor I/O Request Handling (Device End Interrupt 2 of 2)

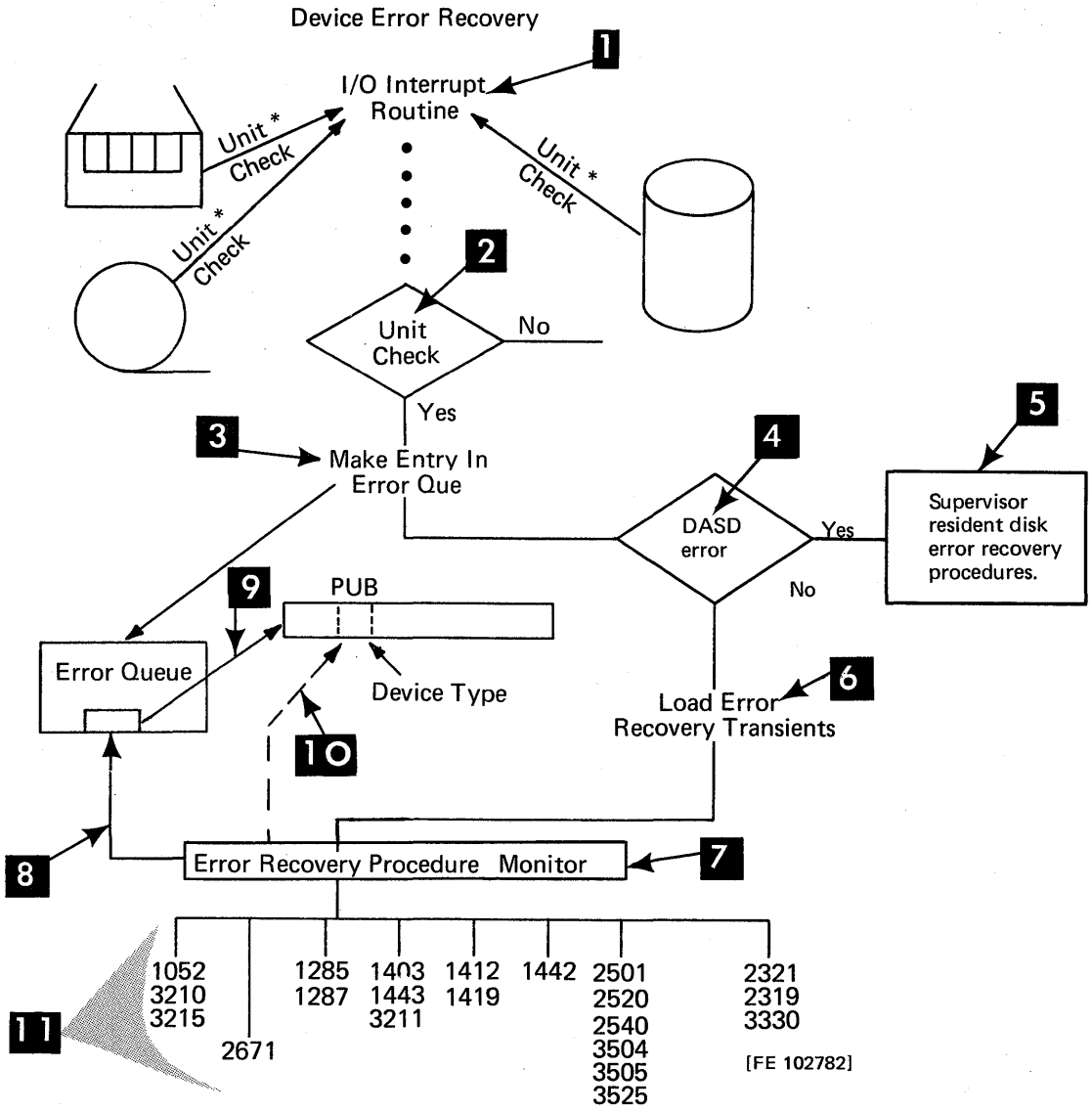


Figure 11.1 Device Error Recovery

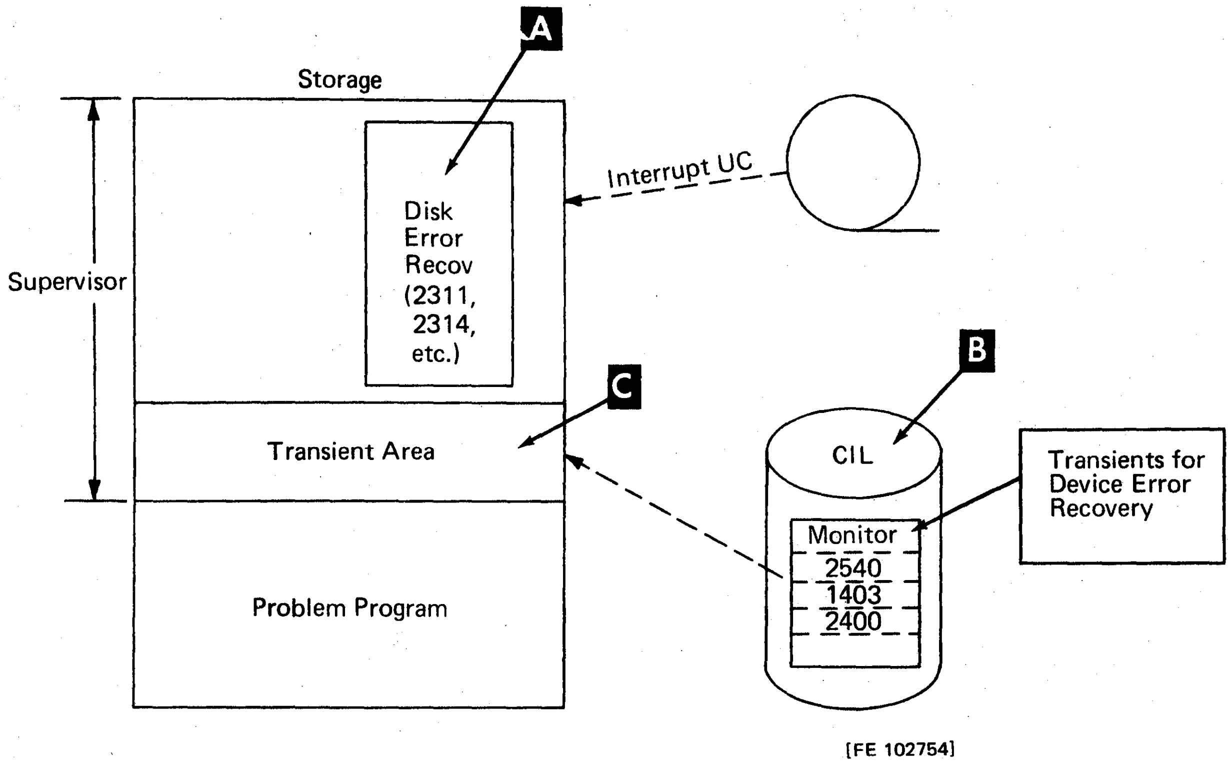


Figure 11.2 Transient Area

```
4                                              3
000544 D300 0048 5006 00048 00006   505+STRTIO1  MVZ  CAW(1),REQID SET PROT KEY IN CAW         1
00054A 9C00 0000       00000        506+SIO      SIO  0
00054C                              507+SIOADR   EQU  SIO+2 CHANN AND UNIT STORED HERE
00054E 4770 055C             0055C  508+STRTED   BC   7,UNCOMMON BR IF NOT A NORMAL START
000552 4032 B90C             0190C  509+         STH  R3,CHNPUBST(R2) STOR ADDR OF PUB LAST STARTED
              2
```

Figure 11.3 SIO Instruction in the Channel Scheduler

SYMBOL	LEN	VALUE	DEFN	REFERENCES								
SETLT2A	00004	000F80	01358	1454								
SETOP1	00002	001290	01645									
SETOP2	00004	001292	01646	1635	1654	1656						
SETSKAD	00001	000D2E	01152	1144								
SETSVAR	00004	000E54	01244	1242								
SFLAG	00001	000010	02701									
SHIO	00001	00001B	02902									
SHORTLGT	00002	00156C	01916	1208	1211							
SIO	00004	00054A	00506	0507								
SIOADR	00004	00054C	00507	0493	0523	0533						
SKADR	00007	0016A9	02017	1153	1202	1203	1203	1204	1269	1273	1922	1923
SLAMPR	00002	0018EE	02227	0799								
SLASTR	00002	0017A4	02097	0797								

(Callouts: 1 at SIO, 2 at DEFN 00506, 3 at VALUE 00054A)

Figure 11.4 Partial Cross-Reference Listing for a Supervisor

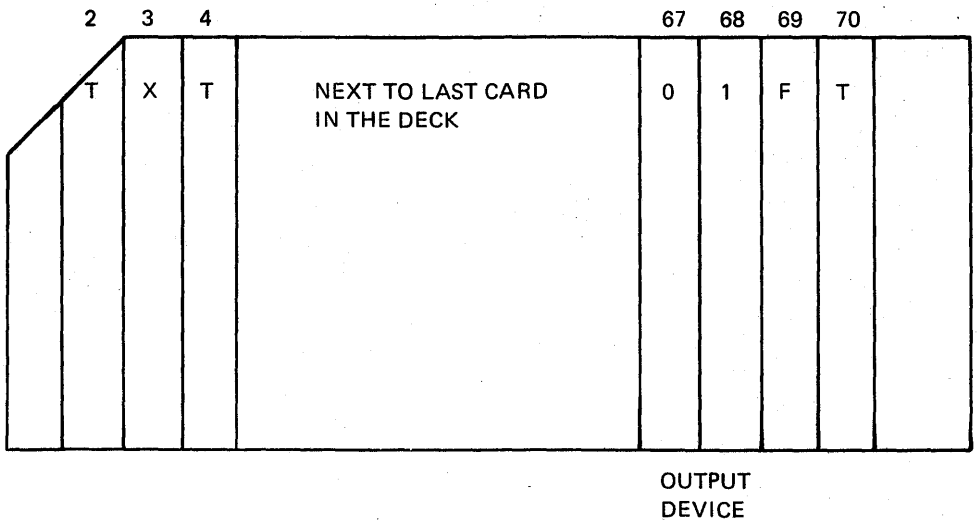


Figure 12.1 SEREP Control Card

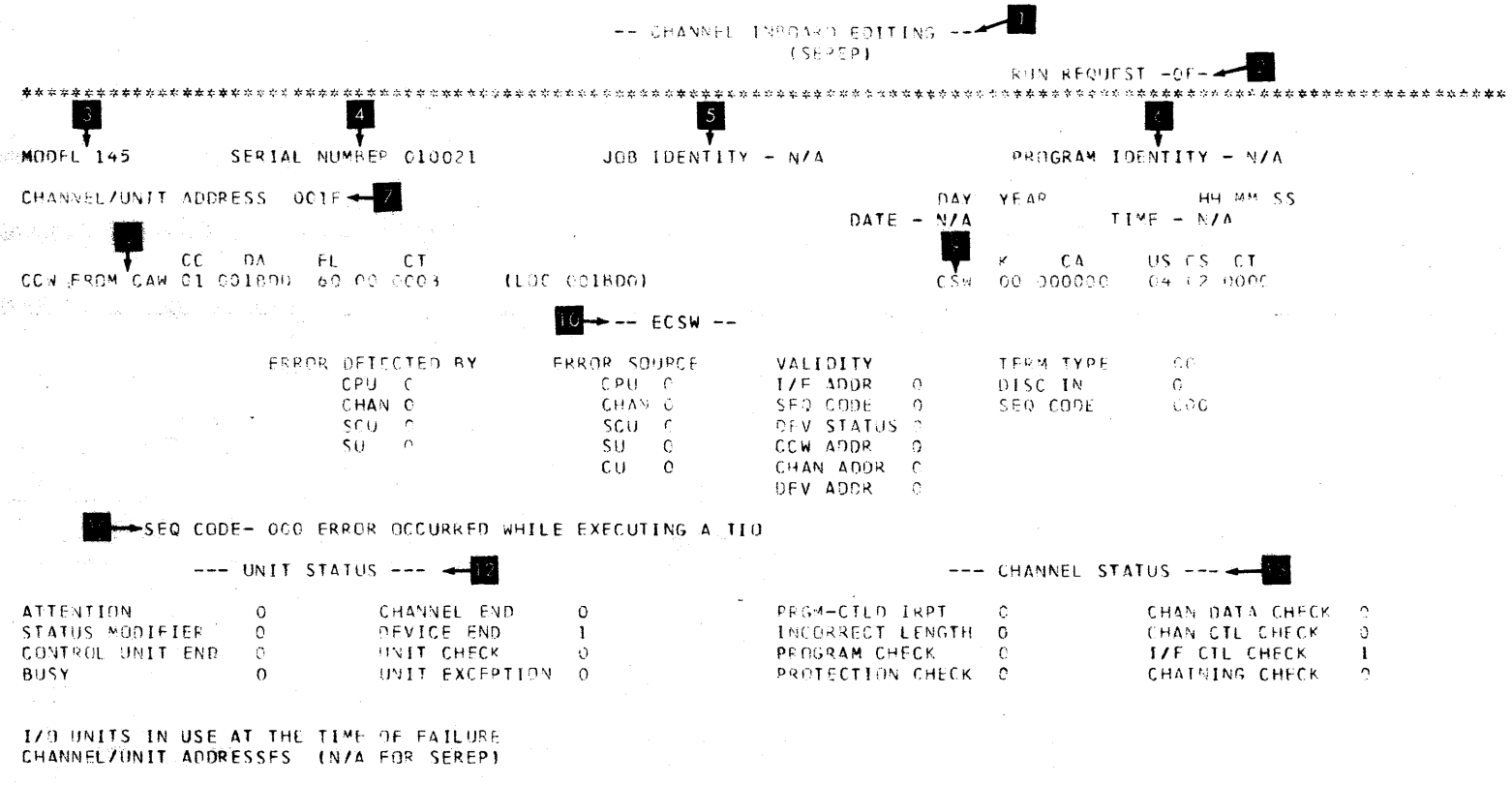


Figure 12.2 SEREP Printout (part 1 of 4)

-- CPU DEPENDENT LOGOUT --

****

-- MACHINE CHECK REGISTER A --

BYTE 0		BYTE 2	
LOCAL STORAGE A SOURCE ADDR CHK	0	ALU 2 HALF SUM CHK	0
LOCAL STORAGE B SOURCE ADDR CHK	0	ALU 3 HALF SUM CHK	0
LOCAL STORAGE A DEST ADDR CHK	0	ALU LOGICAL CHK	0
LOCAL STORAGE B DEST ADDR CHK	0	B REG SHIFT CHK	0
DEST BYTE CTRL CHK	0	A REG PTY CHK	0
LOCAL STORAGE A-B DEST ADDR COMPARE	0	B REG PTY CHK	0
LOCAL STORAGE CTRL ASSM CHK	0	Z REG PTY CHK	0
CTRL REG PTY CHK	0	D REG PTY CHK	0
BYTE 1		**BYTE 3**	
ADDR CHK BOUND REG CHK	0	EXT REG DEST X COMP CHK	0
LOCAL STORAGE COMP CHK	0	EXT REG DEST Y COMP CHK	0
FLUSH THRU CHK	0	EXT REG SOURCE Y CHK	0
H REG PTY CHK	0	EXT CTRL ASSM PTY CHK	0
P REG PTY CHK	0	INTERV TIMER PTY CHK	0
T REG PTY CHK	0	S REG DUP CHK	0
L REG PTY CHK	0	TIME OF DAY CLOCK CHK	0
		CTRL STORAGE ADDR CHK	0

-- MACHINE CHECK REGISTER B --

BYTE 0		BYTE 2	
STORAGE ADDR CHK	0	I CYCLE HARD ERROR	0
SDBI PTY CHK	0	DOUBLE ECC ERROR	0
SDBO PTY CHK	0	P2I CTRL LINE PTY CHK	0
STORE PTY CHK	0	BUSY CHK	0
TIME OUT CHK	0	ECC HARDWARE CHK	0
STORAGE PROT STACK PTY CHK	0	DOUBLE ECC ERROR	0
CLOCK SYNC CHK A	0	SINGLE ECC ERROR	0
CLOCK SYNC CHK B	0	SINGLE DATA BIT CORRCT	0
BYTE 1		**BYTE 3**	
M REG COMP A CHK	0	P2I CT ERROR CORRCT	0
M REG COMP B CHK	0	C32 DATA BIT CORRCT	0
M REG COMP C CHK	0	C16 DATA BIT CORRCT	0
M REG COMP D CHK	0	C8 DATA BIT CORRCT	0
NO ADR ADJ REG MTCH	0	C4 DATA BIT CORRCT	0
MULT ADR ADJ REG MTCH	0	C2 DATA BIT CORRCT	0
ADR ADJ LRU INVALID	0	C1 DATA BIT CORRCT	0
ANY MACH CHK ON	0	C0 DATA BIT CORRCT	0

Figure 12.2 **SEREP** Printout (part 2 of 4)

-- LOCAL STORAGE REGISTERS --

---INSTRUCTION CODES---		---UNIT ADDRESS---		---UCW ADDRESS---		---SEQ CODE---	
*CHAN LOADED	0	00		0000		00	
CONTROL COMMAND	0						
CHAINING	0	---INTERRUPT BUFFER---		---BUS IN---		---BUS OUT---	
SHARE REQ	0	0000		00		00	
INTERRUPT	0						
HIO	0	---MC REG---		---MD REG---		---COUNT---	
TIO	0	STORAGE PROTECT KEY - 00		00000000		HIGH 00	
SIO	0	NEXT CCW ADDR- 000000				LOW 00	
*MC,MD,MF VALID IF 1							

---FLAGS AND OPS---		--- TAGS IN ---		--- TAGS OUT ---		---UCW/CHAN STATUS---	
CHAIN DATA	0	OP IN	0	OP OUT	0	ACTIVE/PCI	0
CHAIN COMMAND	0	ADR IN	0	SEL OUT	0	WLR	0
SLI	0	STAT IN	0	ADR OUT	0	PROG CK	0
SKIP	0	SRV IN	0	CMD OUT	0	PROT CK	0
PCI	0	SEL IN	0	SRV OUT	0	STATUS QUEUED OR	
IDA	0	MPX REQUEST	0	MPX INT	0	CHAN DATA CK	0
INPUT,OUTPUT *	0	MPX OR CONSOLE REQ	0	SUPR OUT	0	CHAN CTL CHECK	0
INCR,DECR **	0	DISC IN	0	MPX CHECK	0	I/F CTL CHECK	0
						STATUS NEXT	0

* OUTPUT IF 1,INPUT IF 0
** INCREMENT IF 1,DECREMENT IF 0

--- DOCUMENTARY CONSOLE WORD ---

---BUS IN---	---BUS OUT---	---TA---		---TT---	
00	00	READ LATCH	0	ATTENTION	0
		WRITE LATCH	0	READY	0
		STACKED REQ	0	INTV REQUIRED	0
		SHARE RESET	0	END	0
		ATTEN RESET	0	CONSOLE REQ	0
		ALARM	0	CANCEL	0
		SEN SHARE SET	0		

--- MPX DEPENDENT LOGOUT BYTES IN HEX (INTERPRETED ABOVE). LOG BEGINS AT ADDRESS 00C2C0

0000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

Figure 12.2 SEREP Printout (part 3 of 4)

```
--- ERROR SUMMARY INFORMATION ---

--- STORAGE PROTECT KEYS ---

                    KE  KE  KE  KE  KE  KE  KE  KE  KE  KE  KE  KE  KE  KE  KE  KE
00000000-00007FFF   00  00  00  00  00  00  00  00  00  00  00  00  00  00  00  10
00008000-0000FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00010000-00017FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00018000-0001FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00020000-00027FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00028000-0002FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00030000-00037FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00038000-0003FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00040000-00047FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00048000-0004FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00050000-00057FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00058000-0005FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00060000-00067FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00068000-0006FFFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10
00070000-00077FFF   10  10  10  10  10  10  10  10  10  10  10  10  10  10  10  10

                    SEREP LOGOUT EDITING COMPLETE
```


Figure 12.2 SEREP Printout (part 4 of 4)

```
0I1A GIVE CONTROL COMMANDS
set date=07/29/70, clock=00/00/00
DPD
BG 0I20I DOS/VS IPL COMPLETE
BG 1100A READY FOR COMMUNICATIONS.
1 BG // exec ditto
2 BG DITTO FUNCTION?
3 BG cp
4 BG DITTO FUNCTION?
5 BG eoj
BG 1100A READY FOR COMMUNICATIONS.
BG
```

Figure 12.3 Execute DITTO

```
                    CARD FUNCTIONS
CC      CARD TO CARD
CCS     CARD TO CARD WITH SEQ. NUMBERS AND DECK NAME
CP      CARD TO PRINTER IN CHARACTER FORMAT
CD      CARD TO PRINTER IN CHARACTER AND HEX DUMP FORMAT
CT      CARD TO TAPE BLOCKED 1 TO 400
CTS     CARD TO TAPE RESEQUENCED
                    TAPE FUNCTIONS
TC      TAPE TO CARD BLOCKED OR UNBLOCKED
TP      TAPE TO PRINTER UNBLOCKED IN CHAR. FORMAT
TPD     TAPE TO PRINTER DEBLOCKED IN CHAR. FORMAT
TD      TAPE TO PRINTER UNBLOCKED IN CHAR. AND HEX DUMP
TDD     TAPE TO PRINTER DEBLOCKED IN CHAR. AND HEX DUMP
TPV     TAPE TO PRINTER VARIABLE RECDS CHAR. FORMAT
TDV     TAPE TO PRINTER VARIABLE RECDS CHAR. AND HEX DUMP
TFA     PRINT SYSLST TAPES TYPE A FORMS CONTROL, CCW CODE
TFD     PRINT SYSLST TAPES TYPE D FORMS CONTROL
TRS     TAPE RECORD SCAN
TRL     TAPE RECORD LOAD
INT     INITIALIZE TAPE
TT      TAPE TO TAPE  (01 TO 99)  FILES
TTR     TAPE TO TAPE REBLOCKED
WTM     WRITE TAPE MARK
REW     REWIND TAPE
RUN     REWIND AND UNLOAD TAPE
FSR     FORWARD SPACE RECORD
BSR     BACK SPACE RECORD
FSF     FORWARD SPACE FILE
BSF     BACK SPACE FILE
ERT     ERASE TAPE  %DATA SECURITY ERASE 3410/3420 ONLY¤
                    DISK FUNCTIONS
DP      DISK TO PRINTER UNBLOCKED IN CHAR. FORMAT
DD      DISK TO PRINTER UNBLOCKED IN CHAR. AND HEX DUMP
SP      SPLIT CYLINDER  UNBLOCKED IN CHAR. FORMAT
SD      SPLIT CYLINDER  UNBLOCKED IN CHAR. AND HEX DUMP
DPD     DISK TO PRINTER DEBLOCKED IN CHAR. FORMAT
DDD     DISK TO PRINTER DEBLOCKED IN CHAR. AND HEX DUMP
SPD     SPLIT CYLINDER  DEBLOCKED IN CHAR. FORMAT
SDD     SPLIT CYLINDER  DEBLOCKED IN CHAR. AND HEX DUMP
DRL     DISK RECORD LOAD - KEY AND/OR DATA
DRS     DISK RECORD SCAN - PARTIAL KEY OR DATA OR EOF
SRS     DISK RECORD SCAN - SPLIT CYLINDER
EOF     WRITE DISK EOF RECORD
DID     ALTER DISK IDENTIFICATION VOLUME NUMBER

XXX     LIST FUNCTIONS ON SYSLST
EOJ     END OF JOB
```

Figure 12.4 DITTO Functions via Console Typewriter

```
* * * * * * * * * *        FUNCTION CONTROL CARD FORMAT        * * * * * * * * * *

  CC 1-7      FUNCTION          PARAMETERS

  $$DITTO       CC
  $$DITTO       CCS         DECKTYPE=XXX,DECKNAME=X...X
  $$DITTO       CP
  $$DITTO       CD
  $$DITTO       CT          OUTPUT=SYSNNN,BLKFACTOR=N.N
  $$DITTO       CTS         OUTPUT=SYSNNN,BLKFACTOR=N.N,DECKTYPE=XXX,DECKNAME=X...X
  $$DITTO       TC          INPUT=SYSNNN
  $$DITTO       TP          INPUT=SYSNNN,NBLKS=N..N
  $$DITTO       TPD         INPUT=SYSNNN,RECSIZE=N...N,NBLKS=N..N
  $$DITTO       TD          INPUT=SYSNNN,NBLKS=N..N
  $$DITTO       TDD         INPUT=SYSNNN,RECSIZE=N...N,NBLKS=N..N
  $$DITTO       TPV         INPUT=SYSNNN,NBLKS=N..N
  $$DITTO       TDV         INPUT=SYSNNN,NBLKS=N..N
  $$DITTO       TFA         INPUT=SYSNNN
  $$DITTO       TFD         INPUT=SYSNNN
  $$DITTO       TT          INPUT=SYSNNN,OUTPUT=SYSNNN
  $$DITTO       TTR         INPUT=SYSNNN,OUTPUT=SYSNNN,RECSIZE=N...N,BLKFACTOR=N.N
  $$DITTO       WTM         OUTPUT=SYSNNN
  $$DITTO       REW         OUTPUT=SYSNNN
  $$DITTO       RUN         OUTPUT=SYSNNN
  $$DITTO       FSR         OUTPUT=SYSNNN,NBLKS=N..N
  $$DITTO       BSR         OUTPUT=SYSNNN,NBLKS=N..N
  $$DITTO       FSF         OUTPUT=SYSNNN
  $$DITTO       BSF         OUTPUT=SYSNNN
  $$DITTO       DP          INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH
  $$DITTO       DD          INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH
  $$DITTO       SP          INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH
  $$DITTO       SD          INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH
  $$DITTO       DPD         INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH,RECSIZE=N...N
  $$DITTO       DDD         INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH,RECSIZE=N...N
  $$DITTO       SPD         INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH,RECSIZE=N...N
  $$DITTO       SDD         INPUT=SYSNNN,BEGIN=CCCHH,END=CCCHH,RECSIZE=N...N
  $$DITTO       XXX
  $$DITTO       EOJ
```

Figure 12.5 DITTO Parameters

```
  PARAMETER                    DESCRIPTION

INPUT=SYSNNN          PROGRAMMER LOGICAL INPUT DEVICE
OUTPUT=SYSNNN         PROGRAMMER LOGICAL OUTPUT DEVICE
BEGIN=CCCHH           LOWER DISK EXTENT
END=CCCHH             UPPER DISK EXTENT
NBLKS=N..N            NUMBER OF TAPE BLOCKS      1-9999
RECSIZE=N...N         LOGICAL RECORD SIZE       1-99999
DECKTYPE=XXX          DECKTYPE %BAL, RPG, COB¤
DECKNAME=X...X        DECKNAME %0-3, 0-5, 0-8¤ CHAR.
BLKFACTOR=N.N         OUTPUT BLOCKING FACTOR      1-999


NOTE. SUBMIT %// UPSI 1¤ CARD TO DENOTE CONTROL CARD
OPERATION. LAST PARAMETER STATEMENT MUST BE EOJ.
NBLKS=N..N PARAMETER IS OPTIONAL.
```

Figure 12.6 Parameter Requirements

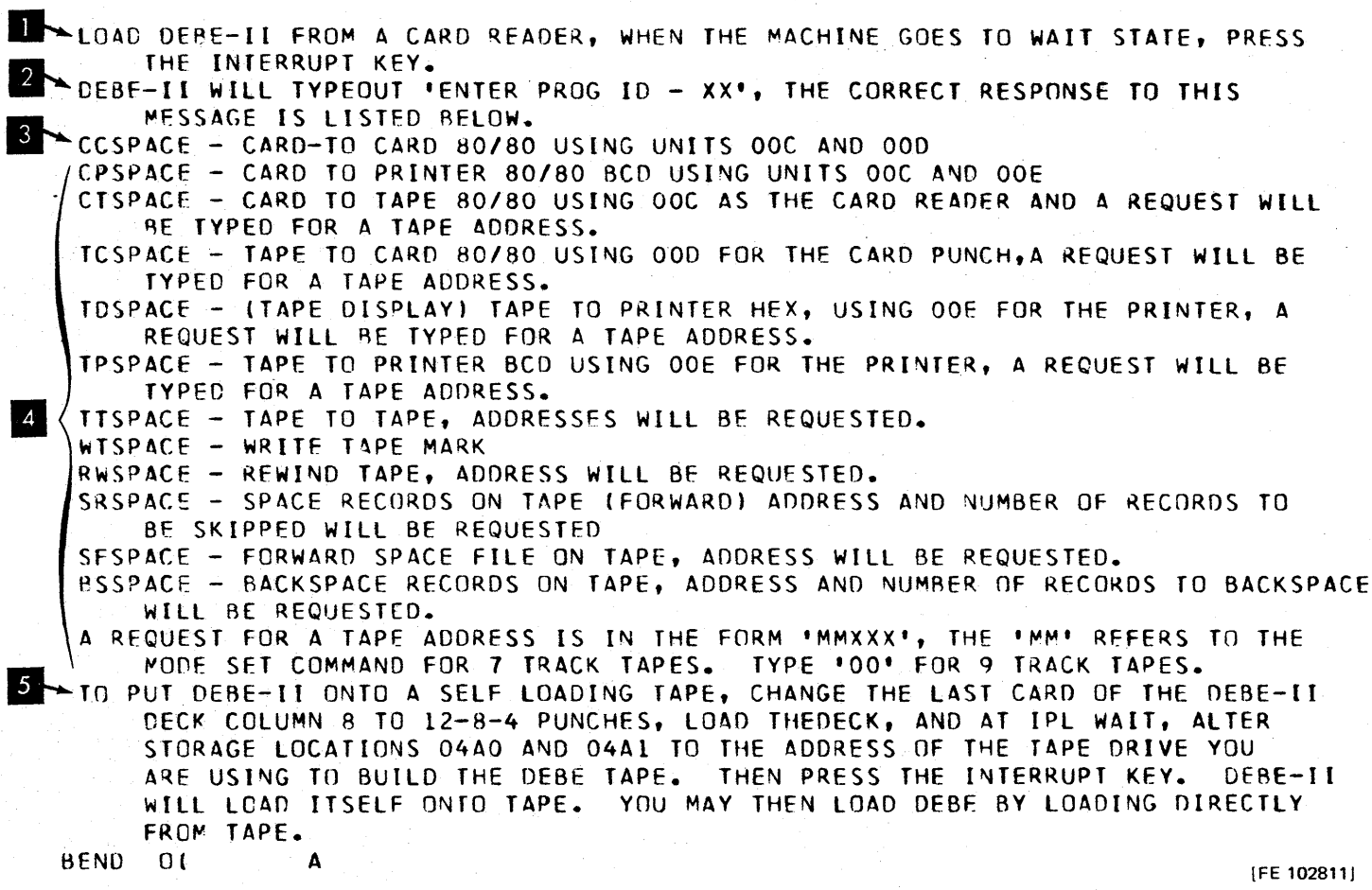


Figure 12.7 DEBE II

Card to Card (80/80)	CC or cc
Card to Printer (80/80 List)	CP or cp
Card to Tape (80 byte tape record)	CT or ct
Tape to Tape (tape duplicate, max 10,000 byte records)	TT or tt
Tape to Printer (BCD dump of data, max 10,000 byte records)	TP or tp
Tape to Printer (hexadecimal dump of data, max 10,000 byte records)	TD or td
Tape to Card (designed for 80 byte tape record)	TC or tc
Write Tape Mark	WT or wt
Forward Space Tape File	SF or sf
Forward Space Tape Records	SR or sr
Backspace Tape Records	BS or bs
Rewind Tape	RW or rw
Disk to Printer (BCD dump of data, max 3,625 byte records)	DP or dp
Disk to Printer (hexadecimal dump of data, max 3,625 byte records)	DD or dd
Volume Table of Contents List	VD or vd
End Debe (return control to DOS)	ED or ed

Figure 12.8 DOS-DEBE Utilities and ID's

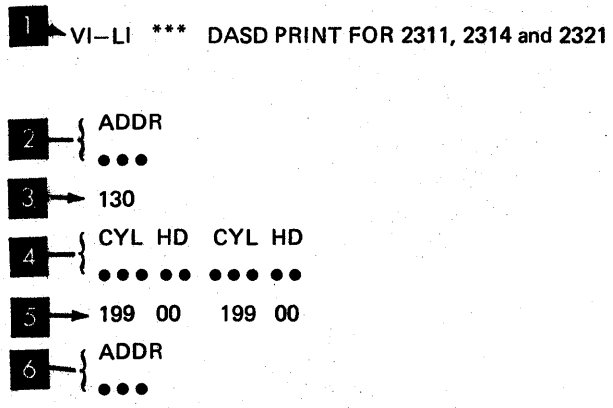
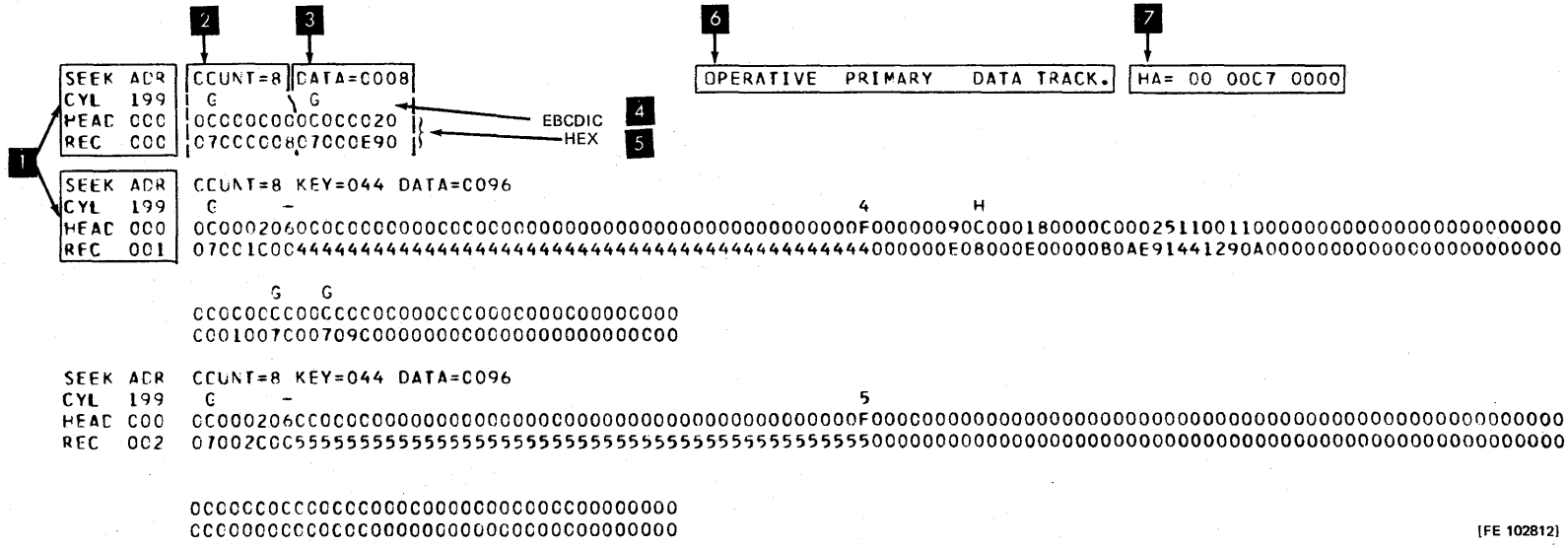


Figure 12.9 DASD Print Operation



[FE 102812]

Figure 12.10 DASD Printout

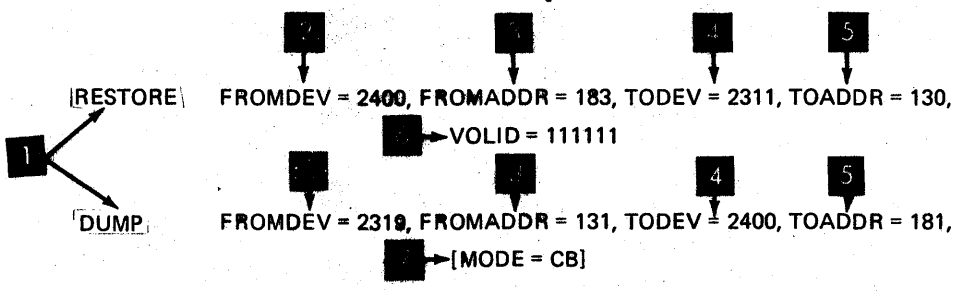
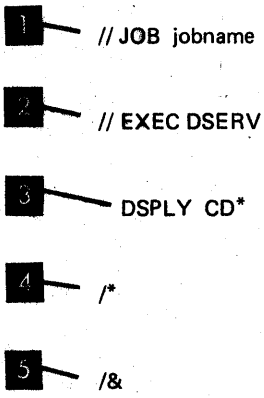


Figure 12.11 OS Dump Restore



* TD for transient directory
CD for core image directory
RD for relocatable directory
SD for source statement directory

Figure 12.12 DSERV Service Function

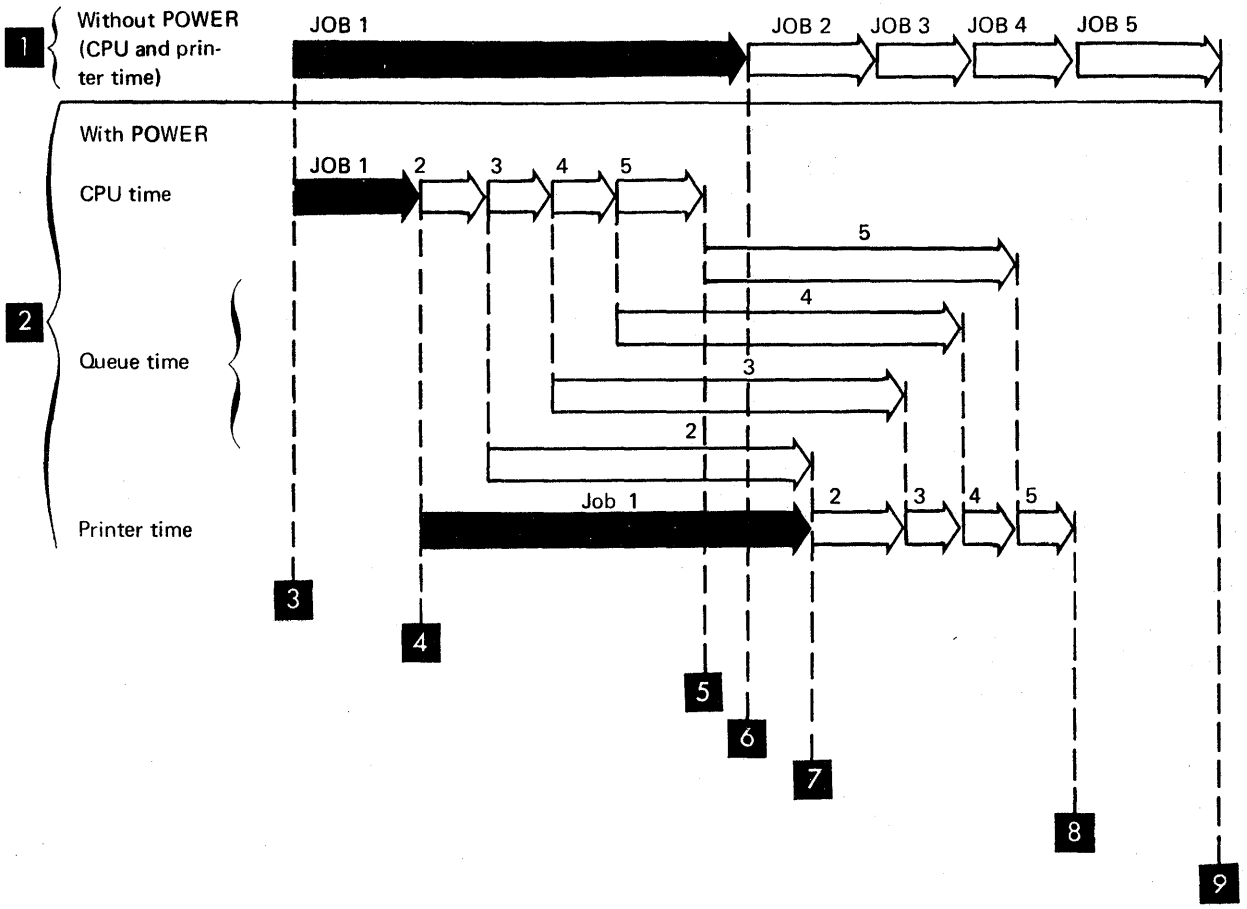


Figure 14.1 POWER Performance

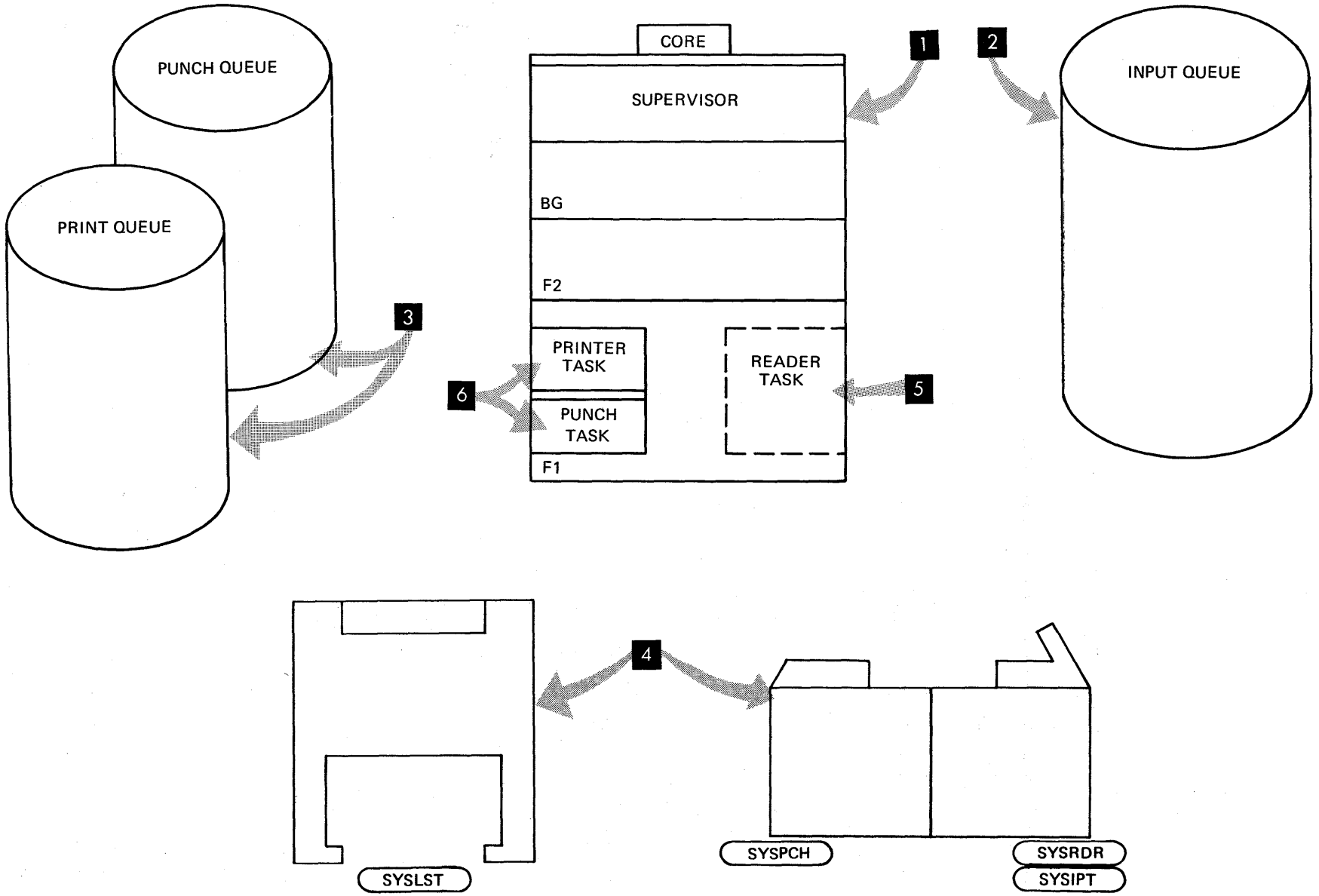


Figure 14.2 POWER System Configuration

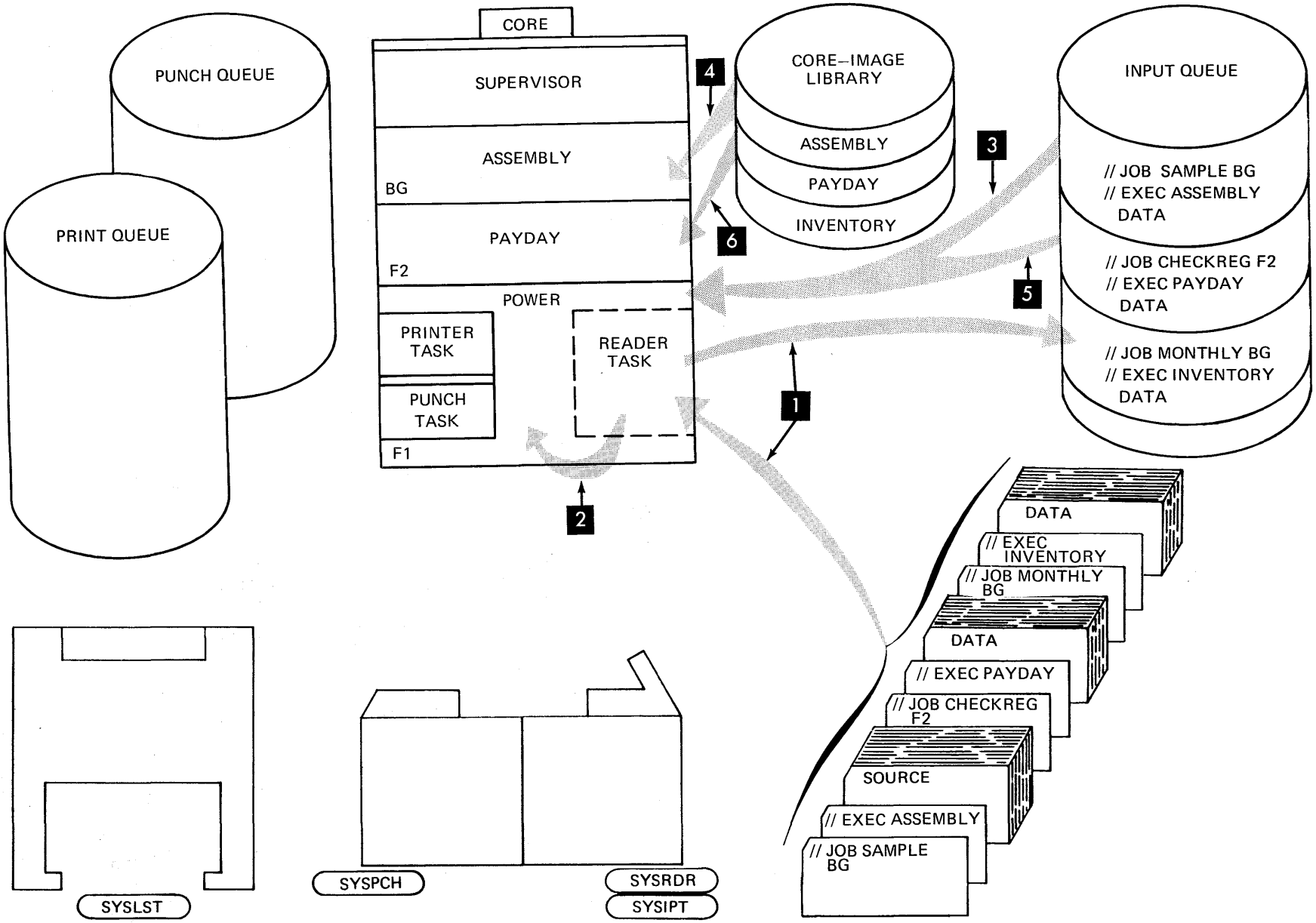


Figure 14.3 POWER Data Flow (Part 1 of 5)

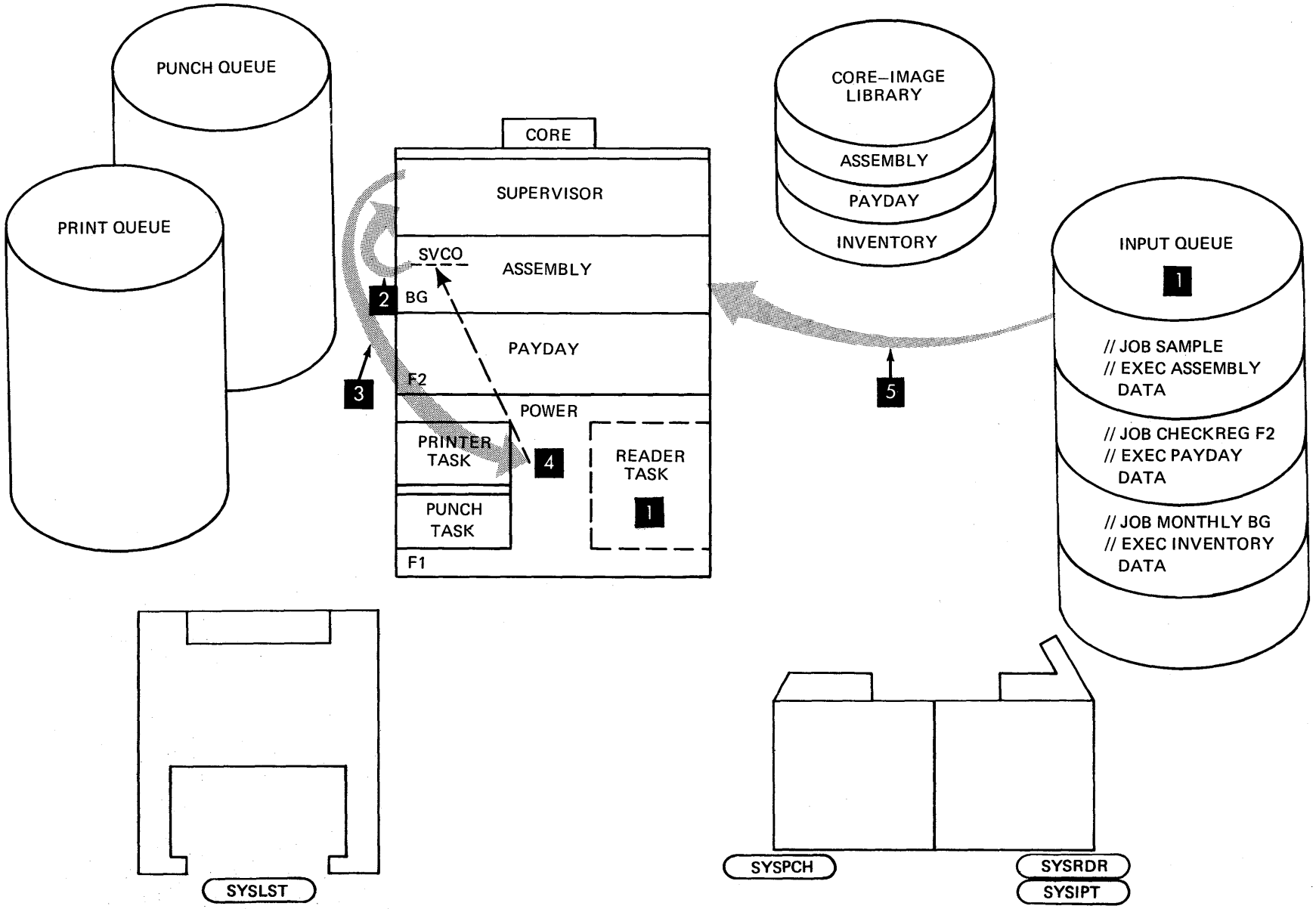


Figure 14.4 POWER Data Flow (Part 2 of 5)

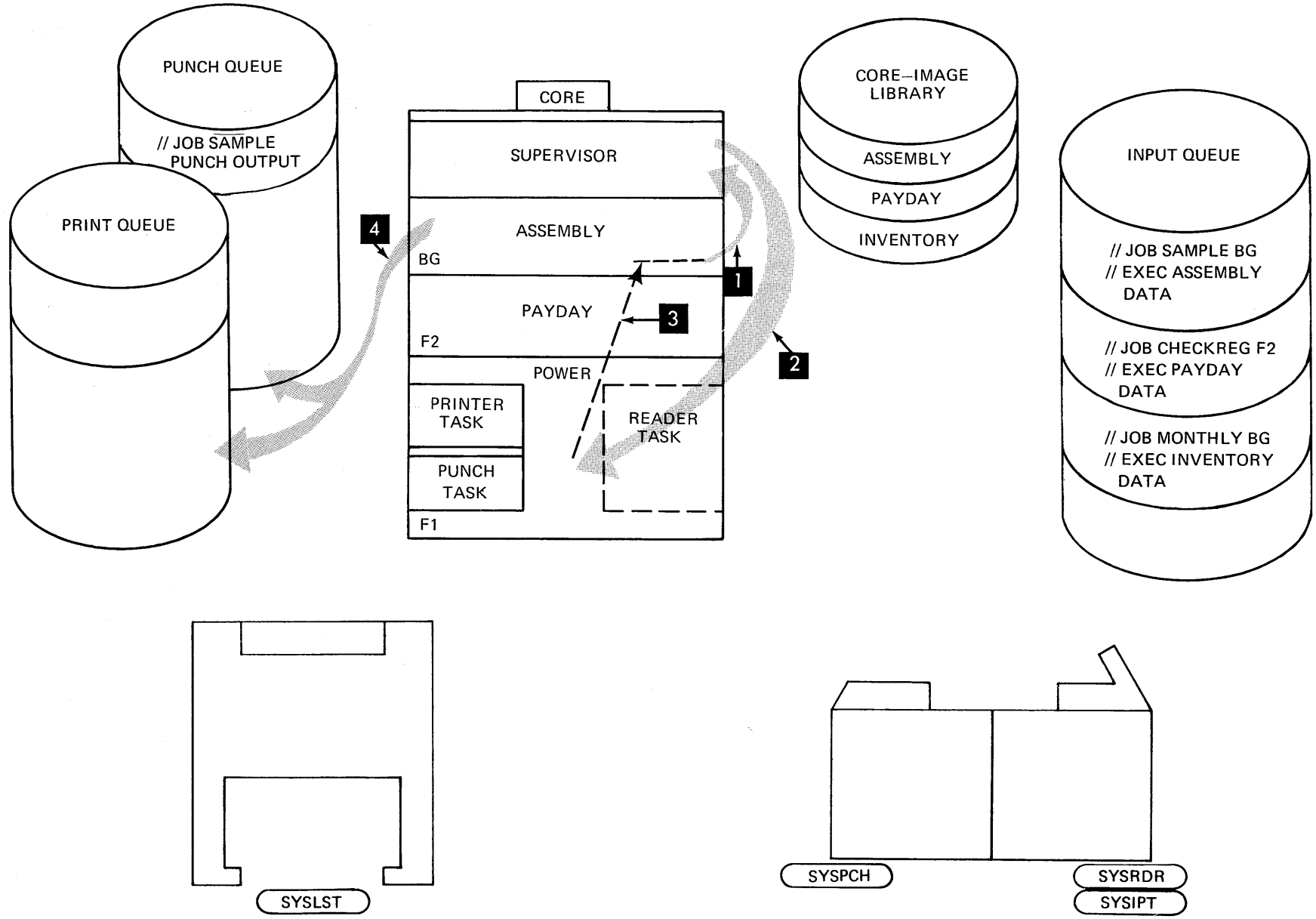


Figure 14.5 POWER Data Flow (Part 3 of 5)

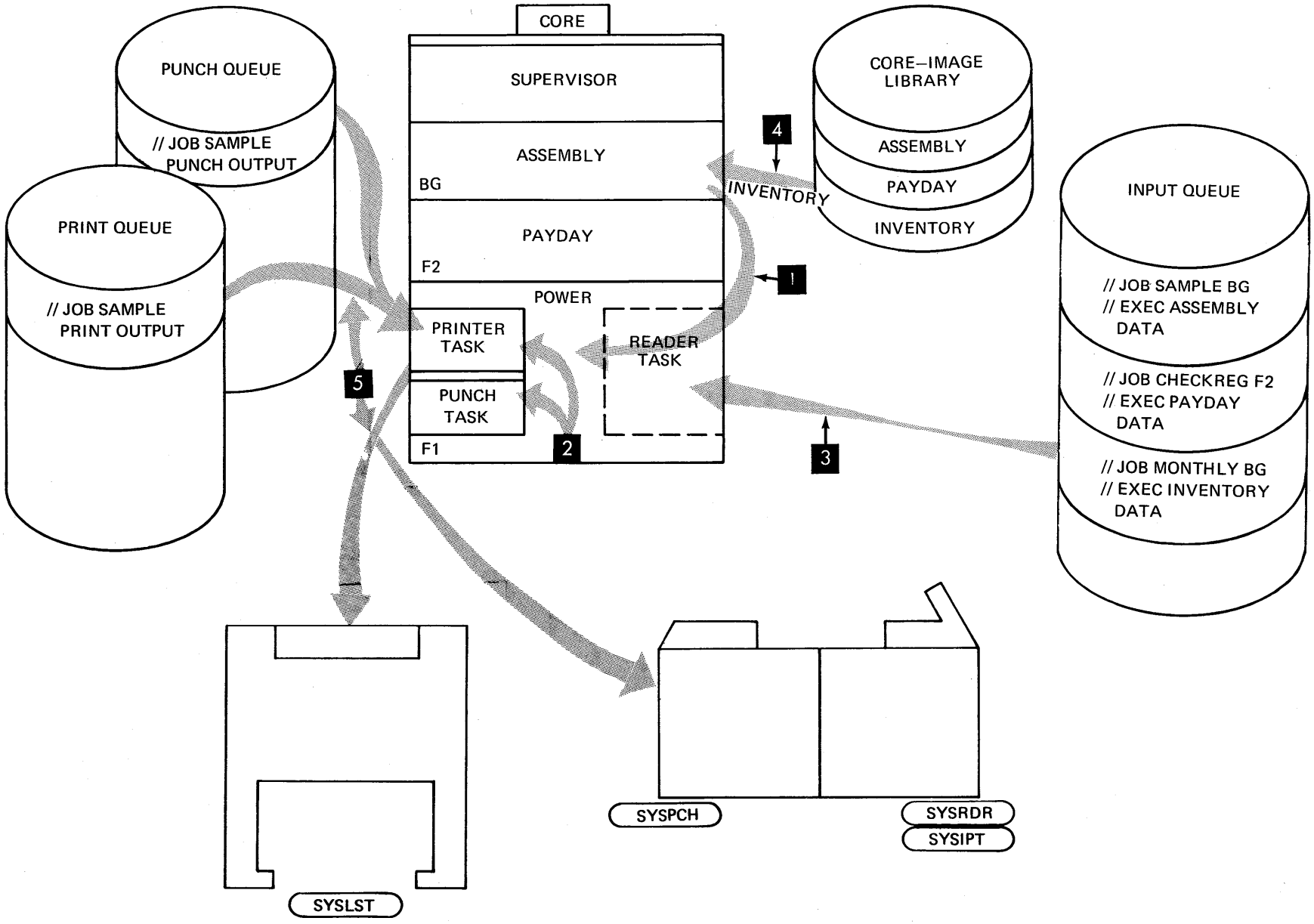


Figure 14.6 POWER Data Flow (Part 4 of 5)

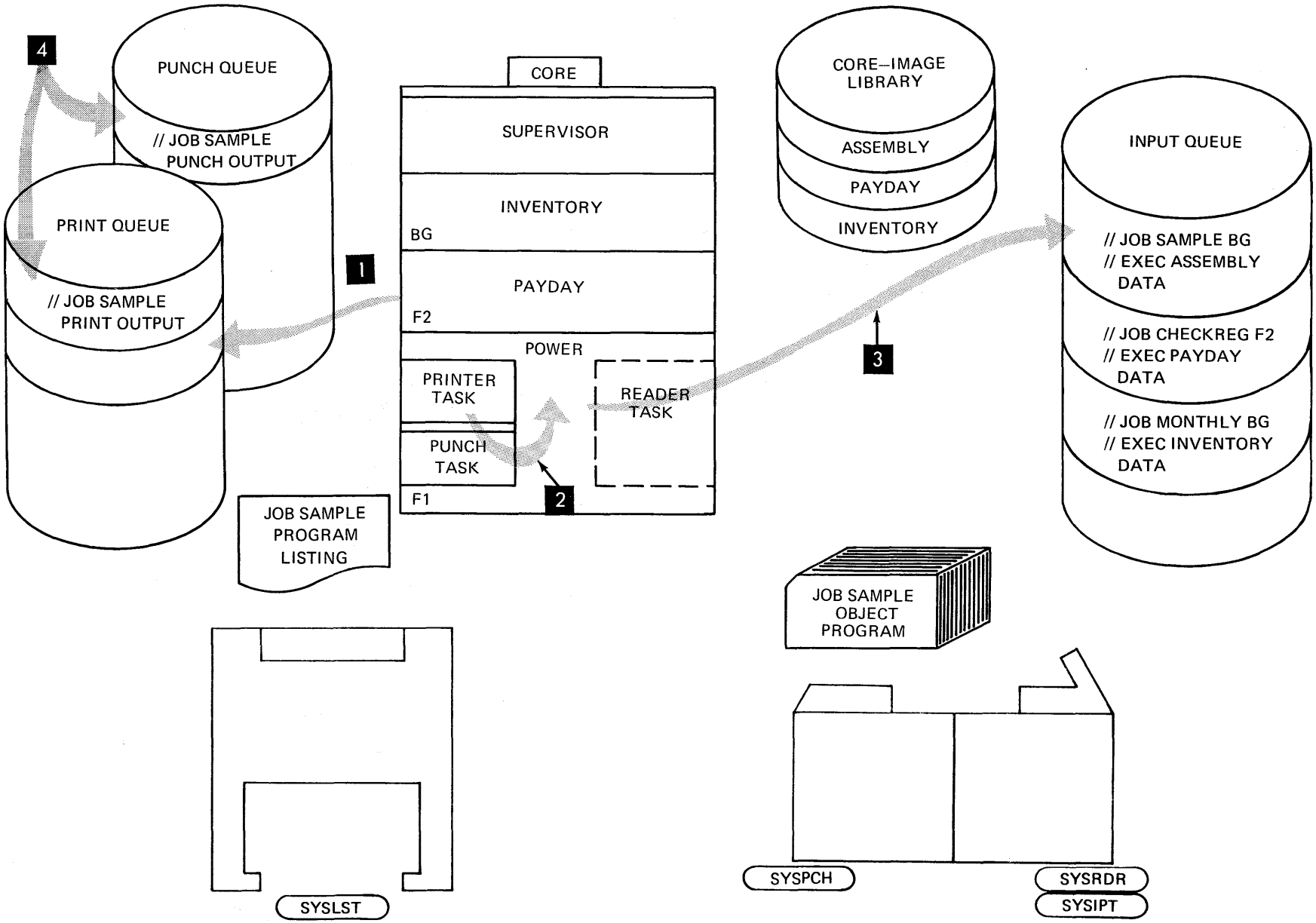


Figure 14.7 POWER Data Flow (Part 5 of 5)

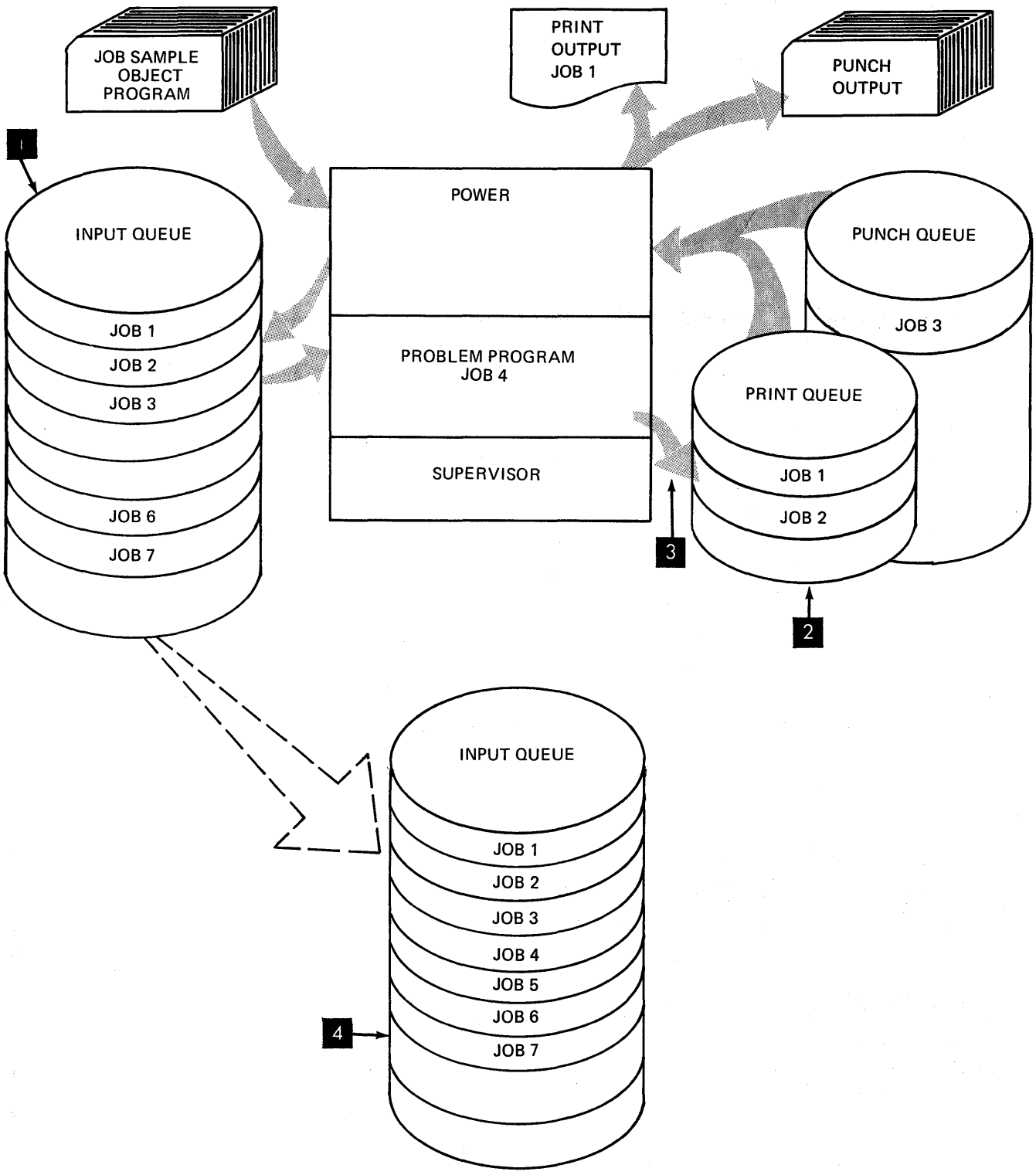


Figure 14.8 POWER Environment 1

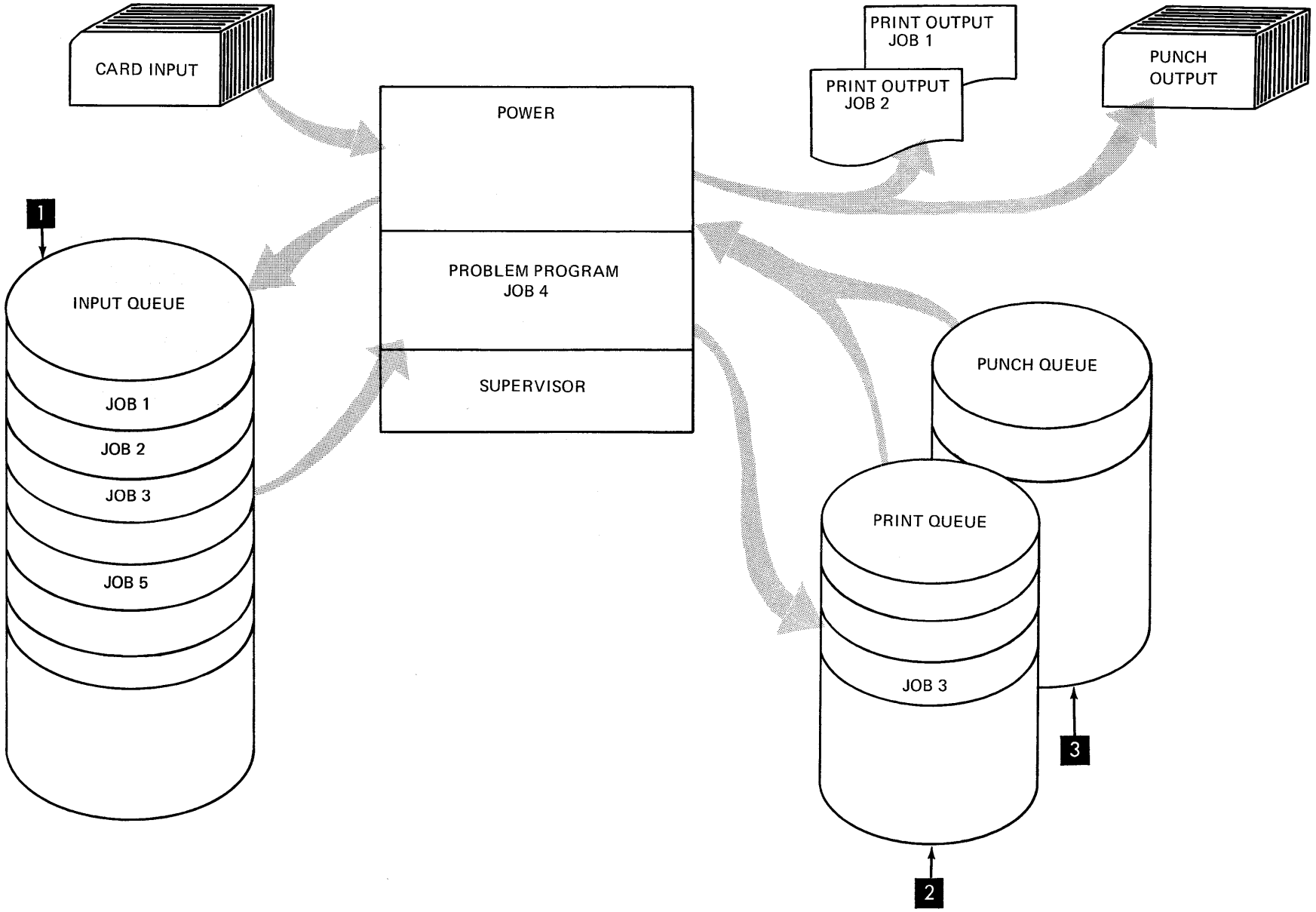


Figure 15.1 POWER Environment 2

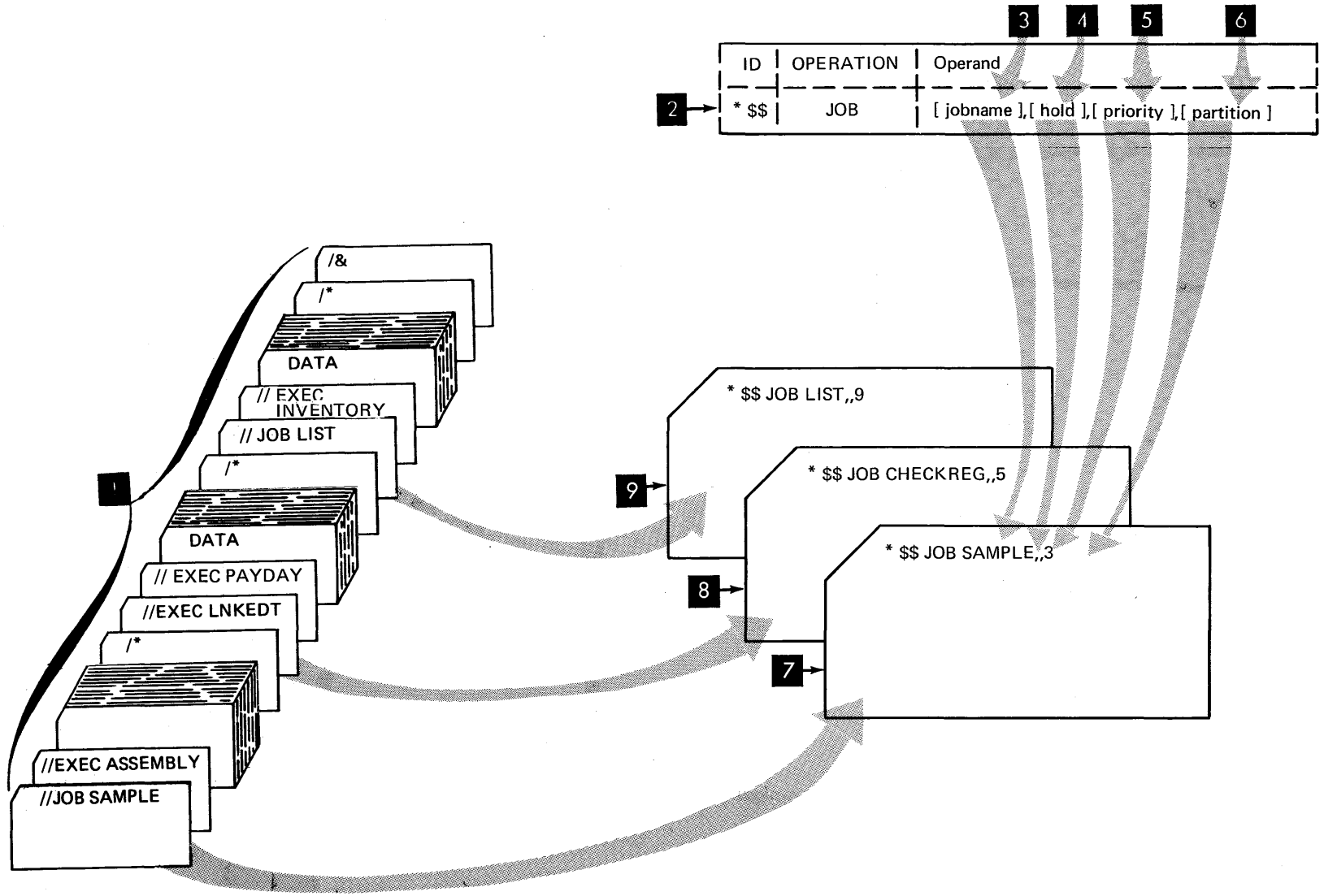


Figure 15.2 Sample Job Stream 1

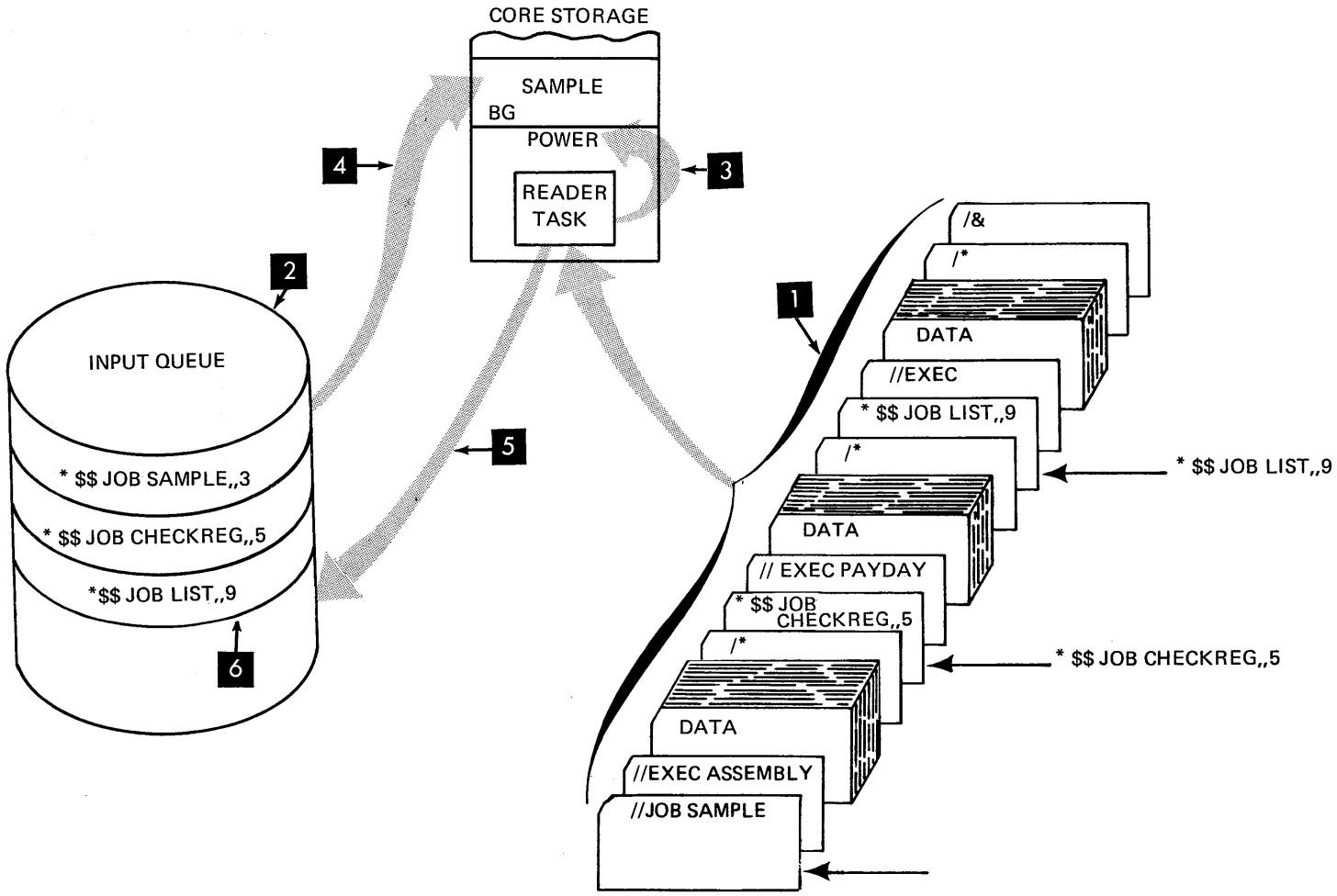


Figure 15.3 Sample Job Stream 2

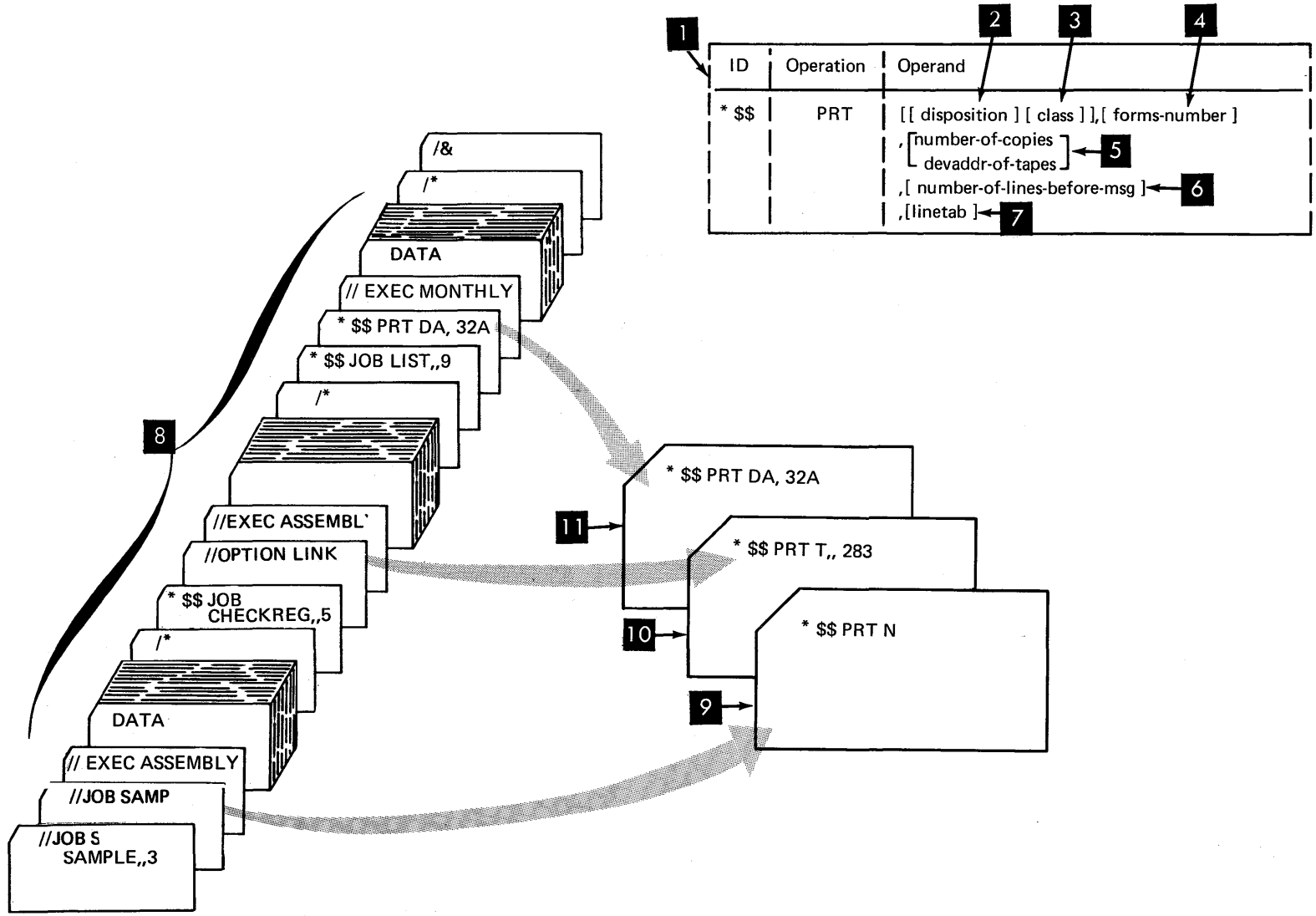


Figure 15.4 POWER Operation PRT Statement

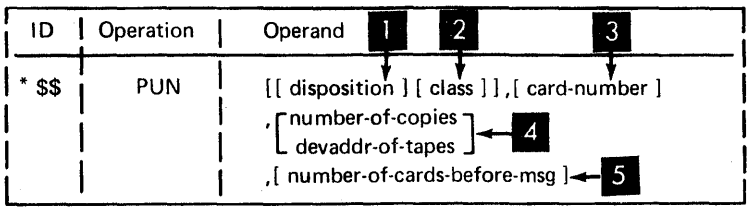


Figure 15.5 PUN Statement

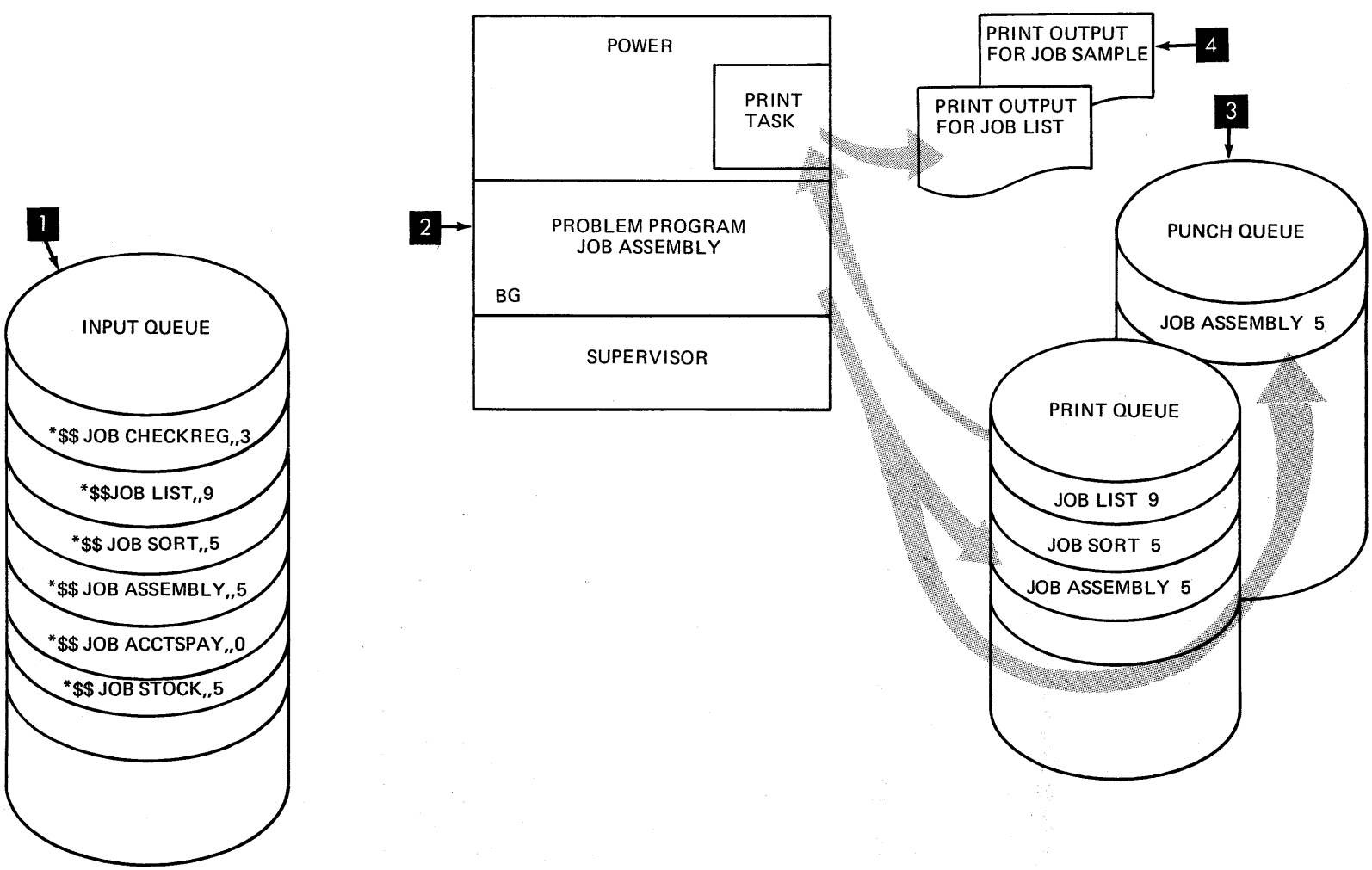


Figure 15.6 POWER System Configuration

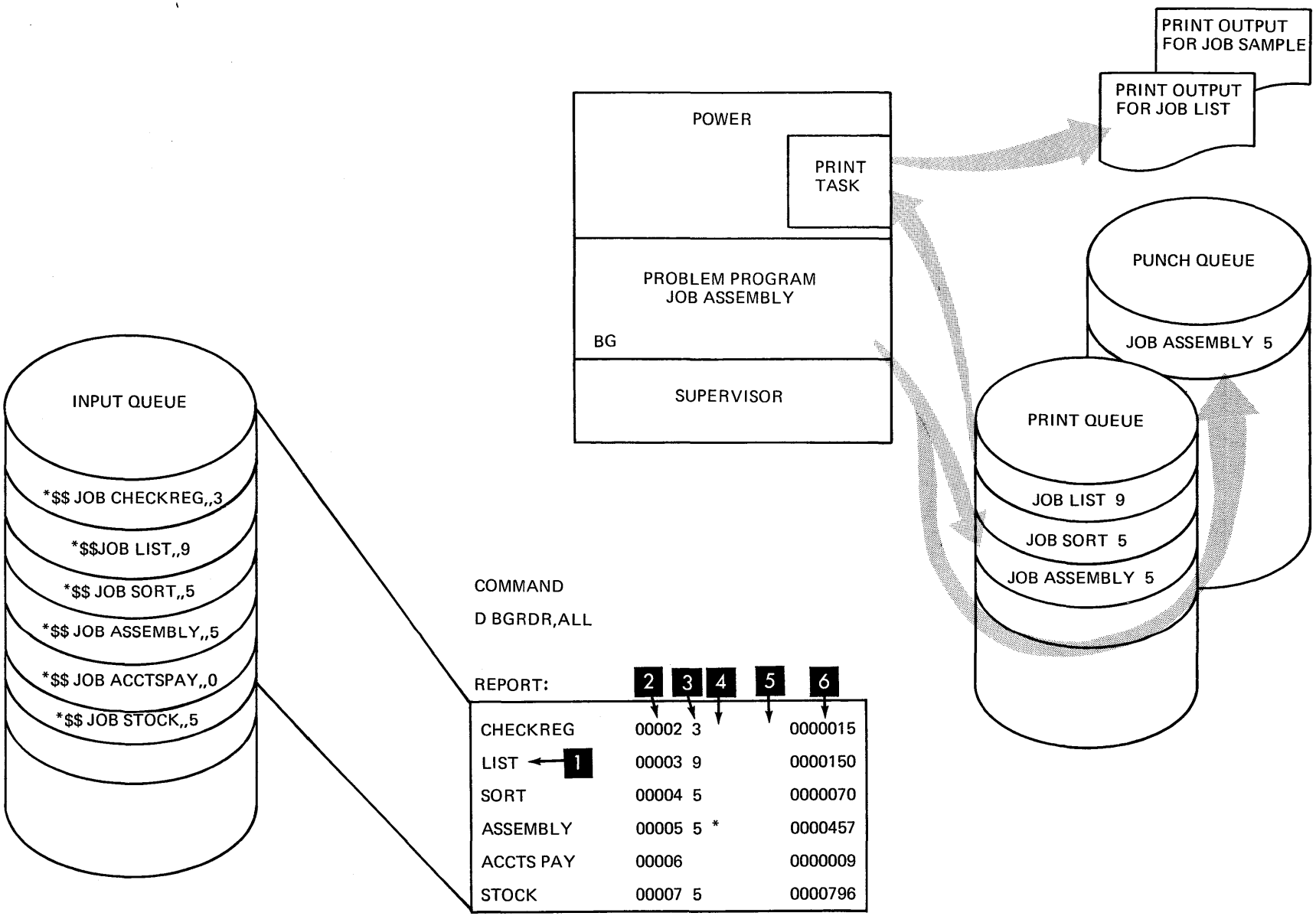


Figure 15.7 DISPLAY Input Queue

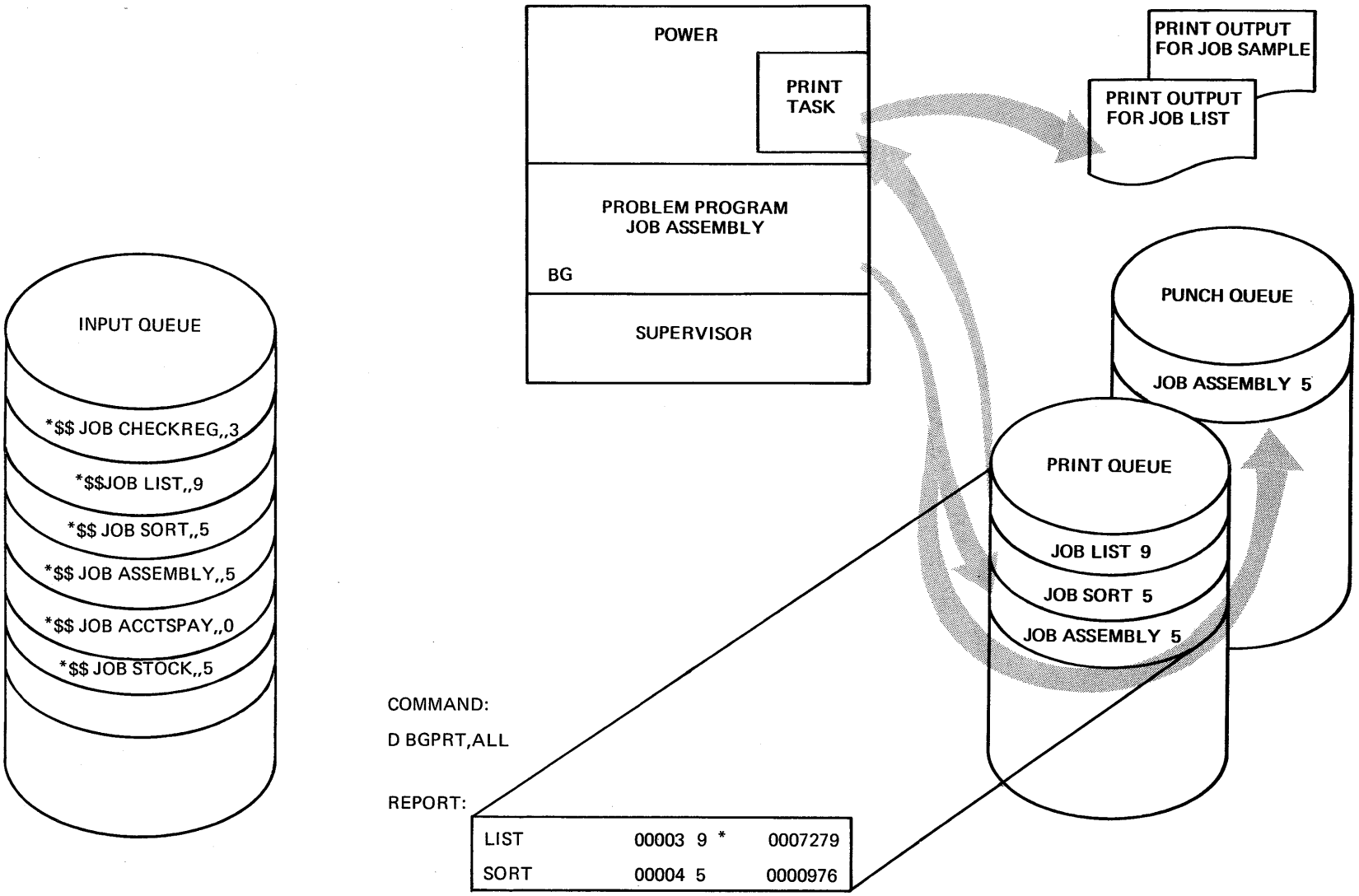


Figure 15.8 DISPLY Print Queue

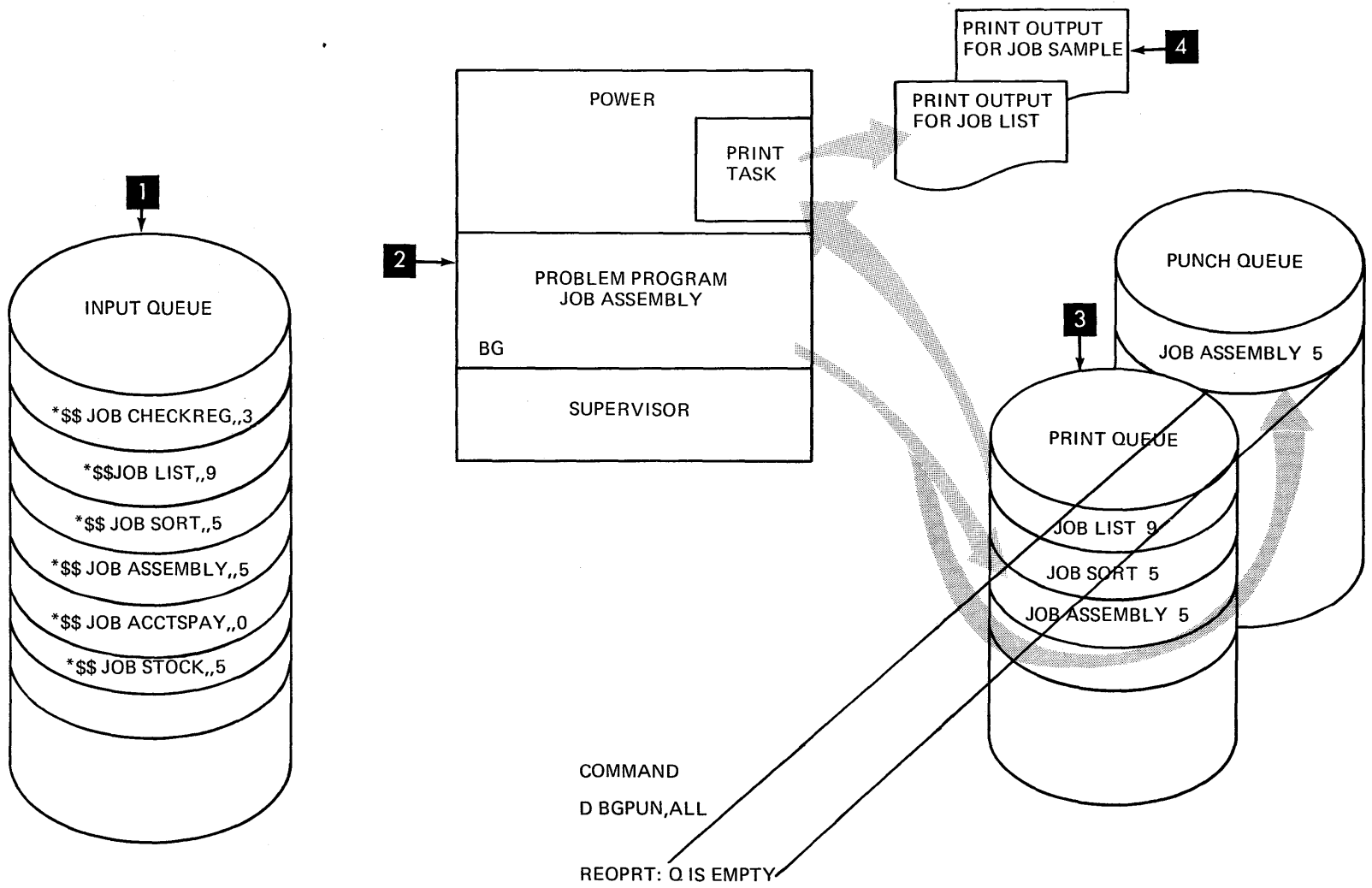


Figure 15.9 DISPLY Punch Queue

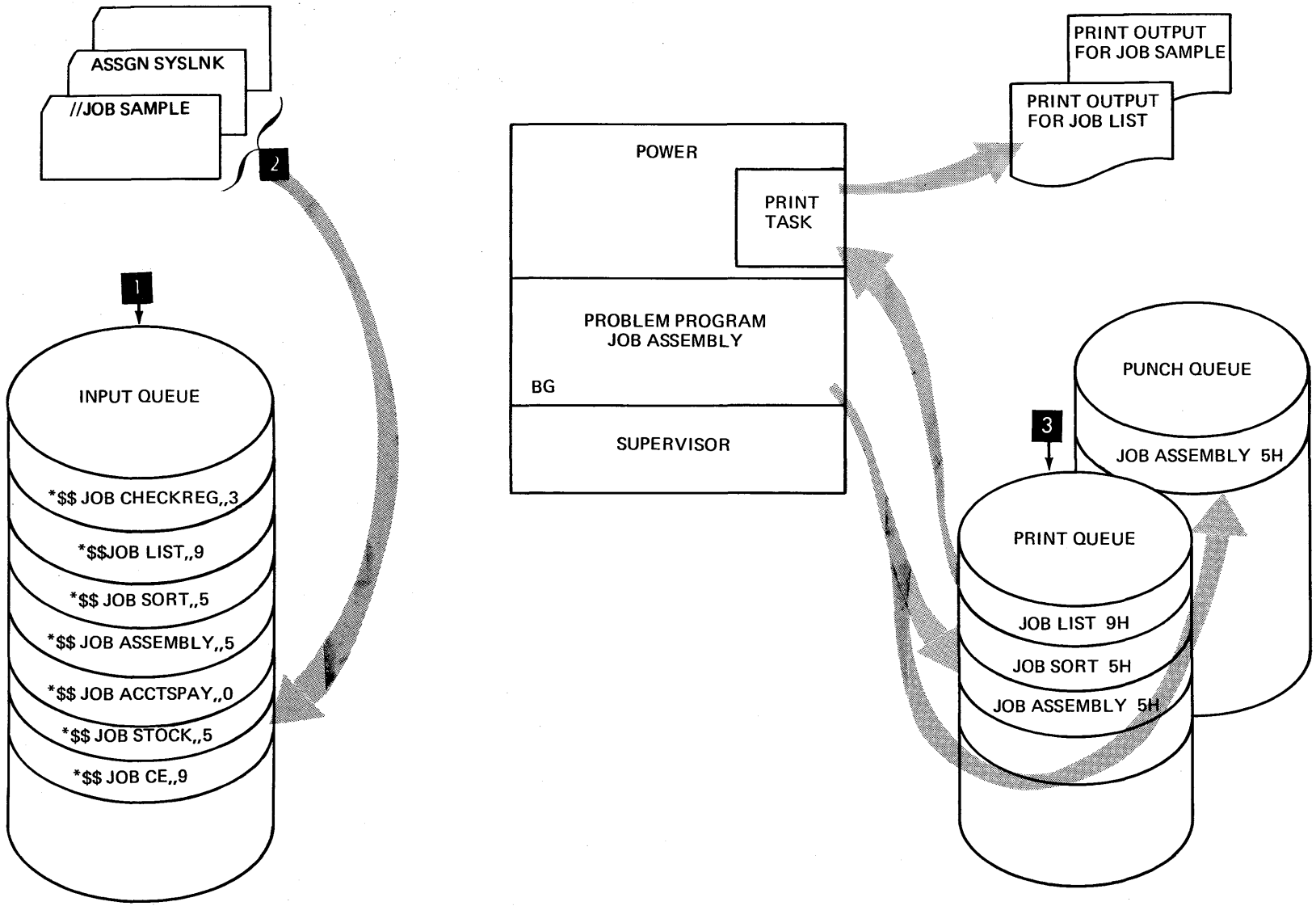


Figure 15.10 POWER Job

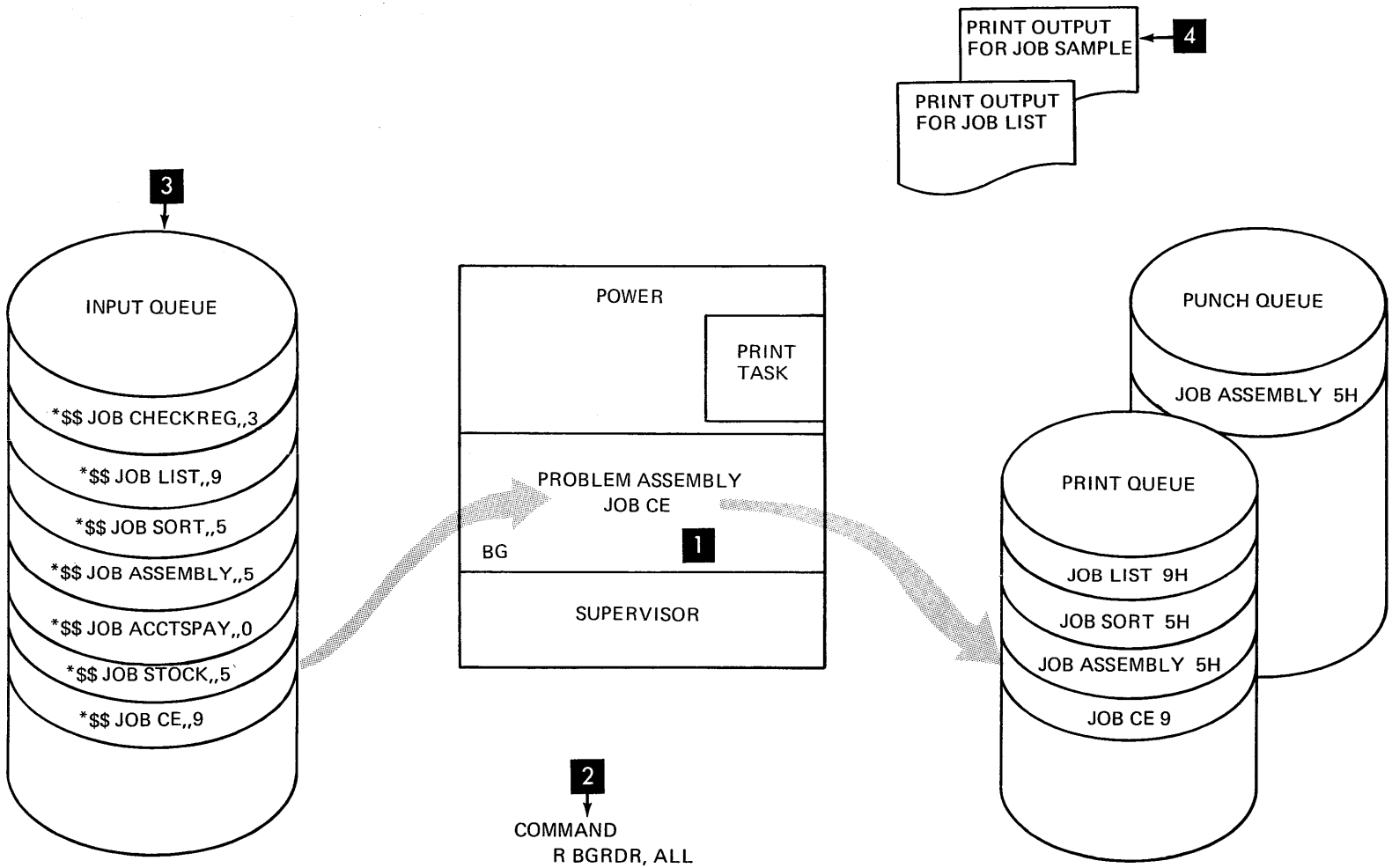


Figure 15.11 POWER Release Command

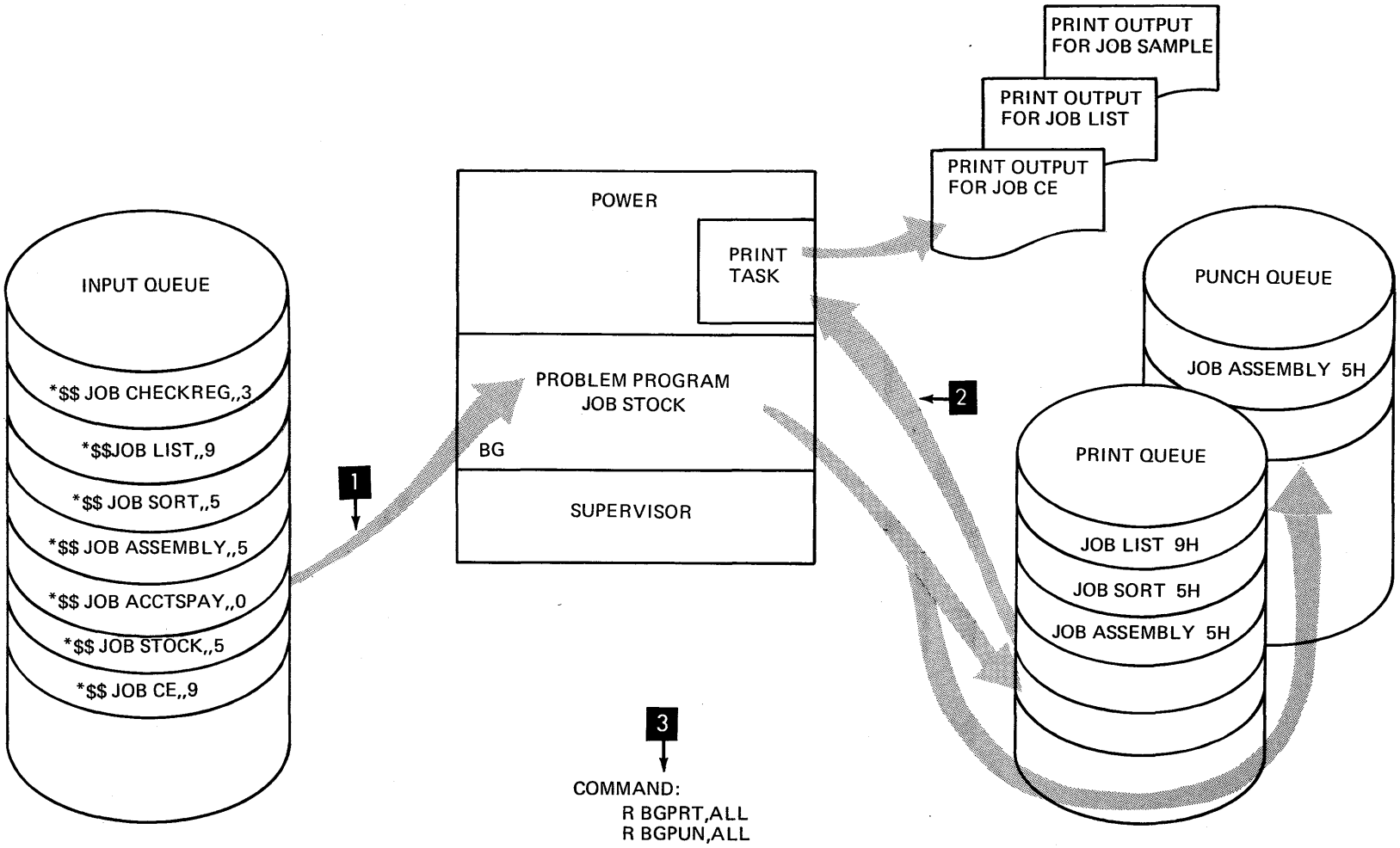
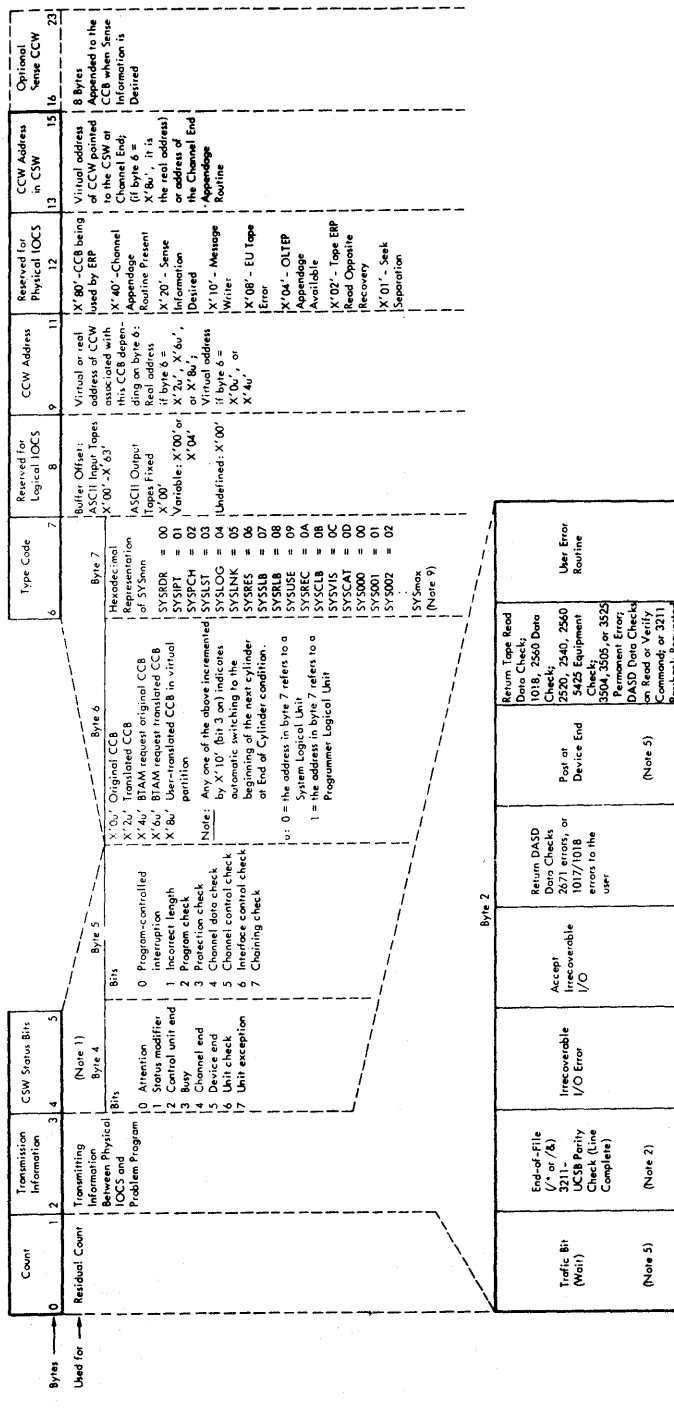
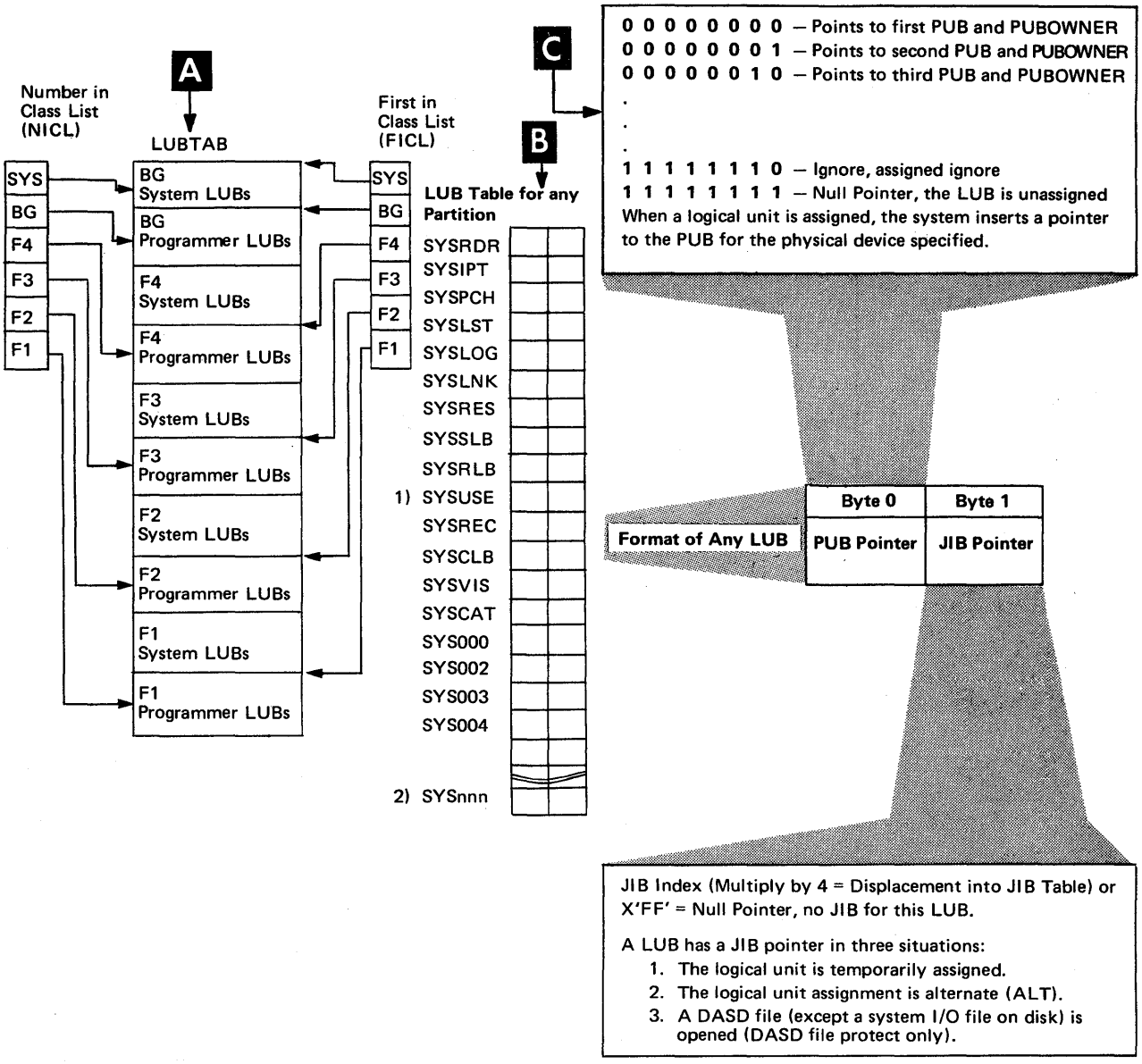


Figure 15.12 POWER System Configuration



Note 1. Bytes 4 and 5 contain the status bytes of the Channel Status Word (Bits 32-47). If byte 2, bit 5 is on and device end results as a separate interrupt, device end will be ORed into CCB byte 4.
Note 2. Indicates /* or /& statement encountered on SYSRDR or SYSIPT. Byte 4 bit 7 (unit exception) is also on.
Note 3. DASD data checks on count not returned.
Note 4. For 1255/1259/1270/1275/1419, disengage. For 1275/1419D, I/O Error in external interrupt routine (channel data check or buscut check).
Note 5. The traffic bit (byte 2, bit 0) is normally set on at channel end to signify that the I/O was completed. If byte 2, bit 5 has been set on, the traffic bit and bits 2 and 6 in byte 3 will be set on at device end. Also see Note 1.
Note 6. 1018 ERP does not support the Error Correction Function.
Note 7. This error occurs as an equipment check, data check, or FCB parity check. For 2245, this error occurs as a data check or FCB parity check.
Note 8. For 3504/3505/3525 input or output files using ERROPT, byte 3, bit 3 is set on if a permanent error occurs. Byte 2, bit 6 is set on to allow you to accept permanent errors.
Note 9. SYSmax=255- (number of partitions+ 14).

Figure A.1 Command Control Block (CCB)



1) *SYSUSE may be called SYSCTL in error recovery messages.*

2) Since there are 14 system LUBs for each partition, the maximum number of Programmer LUBs is as follows:
When number of partitions (NPARTS) = 1:241
When number of partitions (NPARTS) = 2:227
When number of partitions (NPARTS) = 3:213
When number of partitions (NPARTS) = 4:199
When number of partitions (NPARTS) = 5:185

Figure A.2 Logical Unit Block (LUB) Table

B

A Byte 4 of a PUB Entry

Card Code	Actual IBM Device	Device-Type X'nn'	Device Type
2400T9	9-track Magnetic Tape Tape units	50	Magnetic Tape devices
2400T7	7-track Magnetic Tape units	50	
3410T9	9-track 3410 Magnetic Tape units	53	
3410T7	7-track 3420 Magnetic Tape units	52	
3420T9	9-track 3420 Magnetic Tape units	52	
3420T7	7-track 3420 Magnetic Tape units	52	
2495TC	2495 Tape Cartridge Reader	51	Tape Cartridge Reader
1442N1	1442N1 Card Read Punch	30	Card Read Punches
2520B1	2520B1 Card Read Punch	31	
2560	2560 Multifunction Card machine	33	
2596	2596 Card Read Punch	30	
3525RP	3525 Card Punch (with optional read feature)	23	
2501	2501 Card Reader	10	Card Readers
2540R	2540 Card Reader	11	
3504	3504 Card Reader	12	
3505	3505 Card Reader	12	
1540P	2540 Card Punch	21	Card Punches
2520B2	2520B2 Card Punch	20	
1442N2	1442N2 Card Punch	22	
2520B3	2520B3 Card Punch	20	
3525P	3525 Card Punch	23	
1403	1403 Printer	40	Printers
1403U	1403 Printer with UCS feature	42	
1443	1443 Printer	41	
2260(local)	1053 Printer with 2848 Control Unit. MODE operand must be entered as X'01'	C0	
3211	3211 Printer	43	
3277 (local 3270)	3284 or 3286 Printer with 3272 Control Unit. MODE operand must be entered as X'01'	B0	
3277B (local 3270)	3284 or 3286 Printer with 3272 Control Unit, attached in burst mode to a multiplexer channel. MODE operand must be entered as X'01'	B0	

Device Type Codes

Figure A.3 Physical Unit Block (PUB) Table (Part 1 of 3)

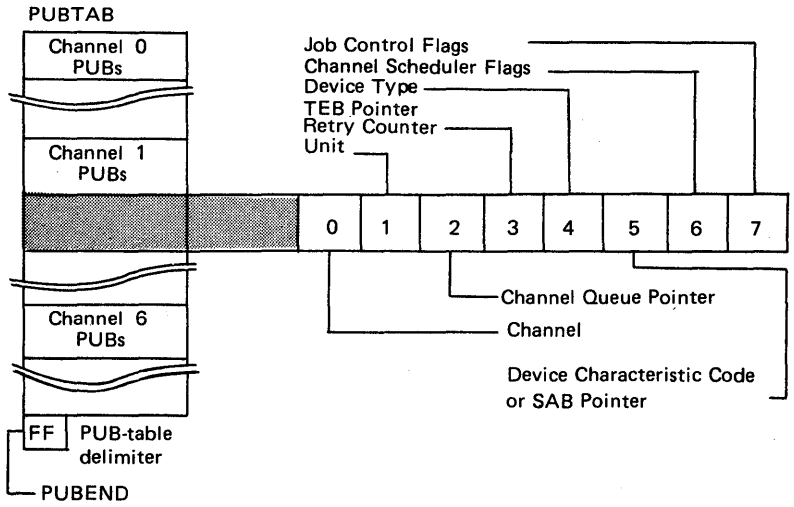


Figure A.3 Physical Unit Block (PUB) Table (Part 2 of 3)

Byte 0: Channel number. (Hex 0-6, FF = NULL)

Byte 1: I/O device unit number

Byte 2: Hex 0, 1, 2, ... points to the first channel queue entry for this device.

Byte 3: If device is a 2495 Tape Cartridge Reader and TEBs are specified, this byte is a TEB pointer (Hex 1, 2, 3, ...). Otherwise, this byte is a ERP retry counter.

Byte 4: Device type code. See Figure 4.10, parts 1 through 3.

Byte 5: SS of the MODE= parameter in the DVCGEN macro for tape unit (See Section 2). For a Model 125 ICA line, this byte contains the displacement index of the entry in the Line Mode Table (LMT). The address of the LMT is contained in bytes X'8C' – X'8F' of SYSCOM.

For DASD with seek separation, this byte is used as the SAB Pointer. With Track Hold but not seek separation supported, this byte contains a pointer to the Track Hold Table entry or X'FF' (with both SKSEP and TRKHLD specified, the track hold pointer is found in the SAB entry).

For MICR type devices, this byte indicates which external interrupt line is in use.

For a 3705 Communications Controller, this byte contains the type number of the Channel Adapter.

For MFCM:

Bit 0: 1= Repositioning required
1: 0= SYSPCH temporarily assigned to hopper 1
1= SYSPCH temporarily assigned to hopper 2
2: 0= SYSIPT temporarily assigned to hopper 1
1= SYSIPT temporarily assigned to hopper 2
3: 0= SYSRDR temporarily assigned to hopper 1
1= SYSRDR temporarily assigned to hopper 2
5: 0= SYSPCH permanently assigned to hopper 1
1= SYSPCH permanently assigned to hopper 2
6: 0= SYSIPT permanently assigned to hopper 1
1= SYSIPT permanently assigned to hopper 2
7: 0= SYSRDR permanently assigned to hopper 1
1= SYSRDR permanently assigned to hopper 2.

Byte 6: Channel Scheduler Flags

Bit 0: 1= Device busy
1: 1= Switchable device
2: 1= EOJ for SYSRDR or SYSIPT
3: 1= I/O error queued for recovery
4: 1= Operator intervention required
5: 1= Device End posting required
6: 1= Burst mode or overrunnable device on byte MPX channel
7: 1= 7-track tape unit.

Byte 7: Job Control Flags

Bit 0-4: Standard MODE assignment for 7-track tape (all ones if not tape, all zeros if device is down)

Bit 5: not used

Bit 6-7: B'11' (both on)= Headqueue in progress
B'01' = Headqueue requested.

Note: A null is generated for each device to be supported by the supervisor. Standard physical unit assignments are made to the PUB table at supervisor generation time. PUBs are ordered by channel and priority within a channel.

An entry in the PUB Ownership Table is associated with each entry in the PUB Table, if the supervisor has been generated to support multiprogramming.

Figure A.3 Physical Unit Block (PUB) Table (Part 3 of 3)

Density (Bytes per inch)	Parity	Convert Feature	Translate	SS Code*
200	odd	on	off	10
200	odd	off	off	30
200	odd	off	on	38
200	even	off	off	20
200	even	off	on	28
556	odd	on	off	50
556	odd	off	off	70
556	odd	off	on	78
556	even	off	off	60
556	even	off	on	68
800	odd	on	off	90
800	odd	off	off	B0
800	odd	off	on	B8
800	even	off	off	A0
800	even	off	on	A8
800	dual density nine-track			C8
1600	dual density nine-track			C0

* Refer to PUB Table, byte 5.

Figure A.4 Density Data

Card Code	Actual IBM Device	Device-Type X'nn'	Device Type
2400T9	9-track Magnetic Tape Tape units	50	Magnetic Tape devices
2400T7	7-track Magnetic Tape units	50	
3410T9	9-track 3410 Magnetic Tape units	53	
3410T7	7-track 3420 Magnetic Tape units	52	
3420T9	9-track 3420 Magnetic Tape units	52	
3420T7	7-track 3420 Magnetic Tape units	52	
2495TC	2495 Tape Cartridge Reader	51	Tape Cartridge Reader
1442N1	1442N1 Card Read Punch	30	Card Read Punches
2520B1	2520B1 Card Read Punch	31	
2560	2560 Multifunction Card machine	33	
2596	2596 Card Read Punch	30	
3525RP	3525 Card Punch (with optional read feature)	23	
2501	2501 Card Reader	10	Card Readers
2540R	2540 Card Reader	11	
3504	3504 Card Reader	12	
3505	3505 Card Reader	12	
1540P	2540 Card Punch	21	Card Punches
2520B2	2520B2 Card Punch	20	
1442N2	1442N2 Card Punch	22	
2520B3	2520B3 Card Punch	20	
3525P	3525 Card Punch	23	
1403	1403 Printer	40	Printers
1403U	1403 Printer with UCS feature	42	
1443	1443 Printer	41	
2260(local)	1053 Printer with 2848 Control Unit. MODE operand must be entered as X'01'	C0	
3211	3211 Printer	43	
3277 (local 3270)	3284 or 3286 Printer with 3272 Control Unit. MODE operand must be entered as X'01'	B0	
3277B (local 3270)	3284 or 3286 Printer with 3272 Control Unit, attached in burst mode to a multiplexer channel. MODE operand must be entered as X'01'	B0	

B — Byte 4 of a PUB Entry

A — Device Type Codes

Figure A.5 Device Type Codes (1 of 3)

Card Code	Actual IBM Device	Device-Type X'nn'	Device Type
1050A	3210, 3215 Console Printer Keyboards	00	Printer-Keyboards
125D	Model 125 Integrated Video Display Unit	B2	Video Display Unit
125DP	Model 125 Integrated Video Display Unit with 5213 Console Printer attached	B2	
UNSP	Unsupported device	FF	Unsupported. No burst mode on multiplexer channel
UNSPB	Unsupported device	FF	Unsupported with burst mode on multiplexer channel
2311	2311 Disk Storage device	60	DASD
2314	2314 Direct Access Storage Facility	62	
2314	2319 Disk Storage Facility	62	
2321	2321 Data Cell Drive	61	
3330	3330-1, 3330-2, or 333-1 Disk Storage	63	
1419	1255 Magnetic Character Reader	72	MICR- Magnetic Ink Character Recognition devices
1419	1259 Magnetic Character Reader	72	
1419	1419 Magnetic Character Reader	72	
1419P	1419 Dual Address Adapter Primary Control Unit	73	
1419S	1419 Dual Address Adapter Secondary Contr. Unit	74	
2701	2701/2715 Data Adapter Unit	D0	Teleprocessing lines
2702 A 2702 B 2702 C 2702 D	2702 Transmission Control Unit	D1	A= SAD0 comm'd B= SAD1 comm'd C= SAD2 comm'd D= SAD3 comm'd when enabling the line
2703	2703 Transmission Control Unit	D2	
2955	2955 Data Adapter Unit	D7	Data Link for RETAIN
1017	1017 Paper Tape Reader with 2826 Control Unit	78	Paper Tape Readers
2671	2671 Paper Tape Reader	70	
1018	1018 Paper Tape Punch with 2826 Control Unit	79	Paper Tape Punch
1419	1270 Optical Reader/ Sorter	72	Optical Readers
1419P	1275 Optical Reader/ Sorter	73	

Device Type Codes

A.5 Device Type Codes (2 of 3)

Card Code	Actual IBM Device	Device-Type X'nn'	Device Type
1287	1287 Optical Reader	77	Optical Readers
1288	1288 Optical Page Reader	77	
3881	*3881 Optical Mark Reader	11	
3886	3886 Optical Character Reader	7C	
2260	2260 Display Station	C0	Display Stations
3277 (local 3270)	3277 Display Station; MODE operand need not be entered	B0	
3277B (local 3270)	3277 Display Station; attached in burst mode to a multiplexer channel. MODE operand need not be entered	B0	
7770	7770 Audio Response Unit	D3	Audio Response unit

Note: The logical unit name SYSIN cannot be assigned to a 3881

Device Type Codes

Figure A.5 Device Type Codes (3 of 3)

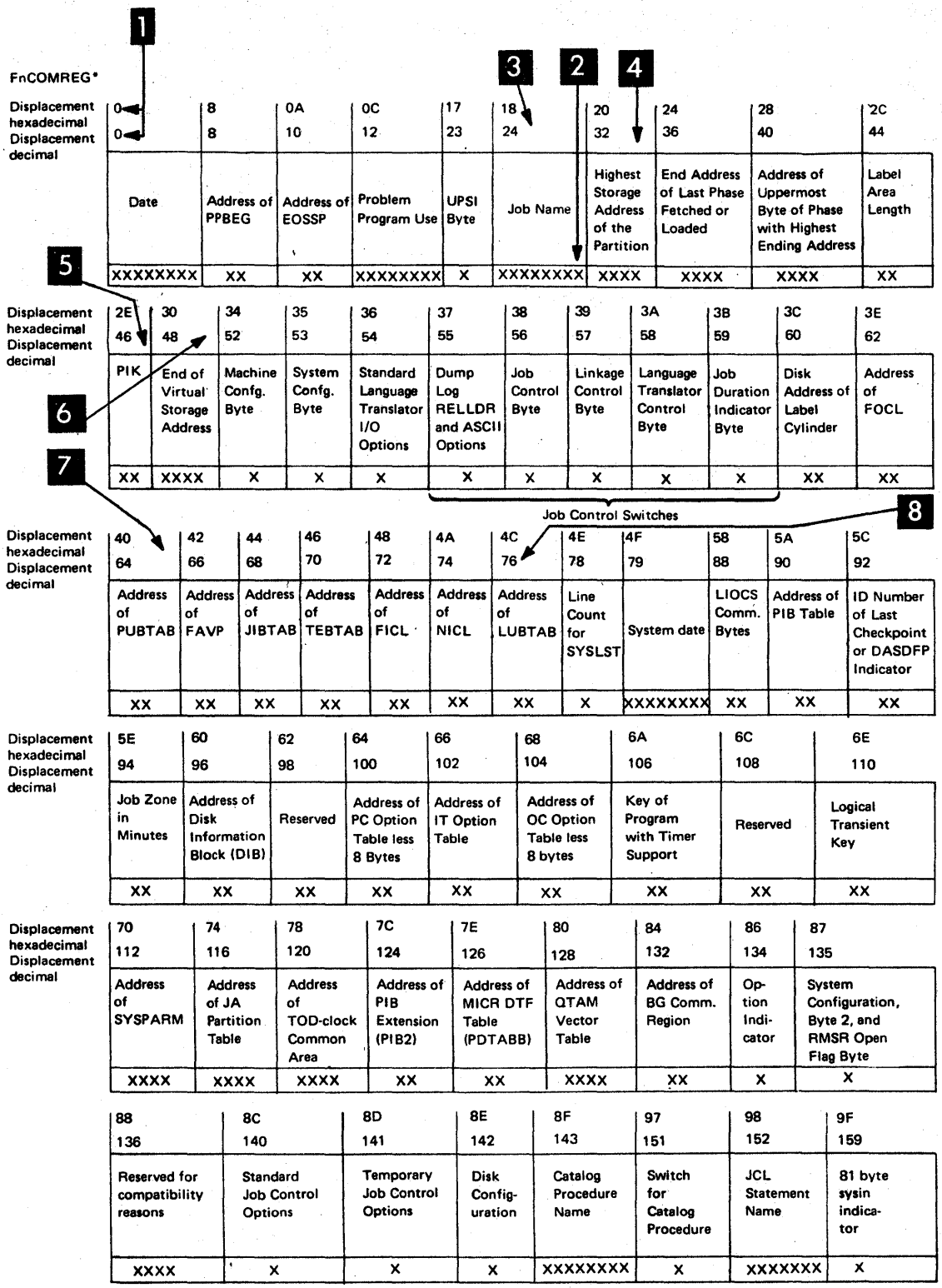


Figure A.6 Supervisor Communications Region (Part 1 of 7)

Key to Communications Region Displacements

Displacement (Dec)	Meaning
0	MM/DD/YY or DD/MM/YY either set permanently at IPL time or temporary by the job control date statement, or updated every time a GETIME macro is issued when time-of-day support is provided. Format controlled by BGCOMREG +53. (System Configuration Byte, data convention bit 0)
8	Address of the problem program area. (PPBEG)
10	Address of the beginning of the problem program area. Y (EOSSP) equals Y (PPBEG)
12	User area. If seek separation option is specified, bytes 12 and 13 are used at IPL time for the address of the seek address block.
23	User program switch indicator.
24	Job name set by the job control program from information found in the job statement.
32	Address of the uppermost byte available to the problem program, that is either the address of the uppermost byte of the partition as determined during processing of the ALLOC or ALLOCR macro or statement, or the end address of the area specified by the SIZE parameter in the EXEC statement.
36	Address of the uppermost byte of the last phase of the problem program fetched or loaded.
40	Highest ending main-storage address of the last phase among all the phases having the same first four characters as the operand on the EXEC statement. For the background partition only, job control builds a phase directory of these phases. (However, for the phases $LNKEDT, $LNKEDTX, $MAINEOJ, MAINTEJP no phases directory is built and this field is not filled in.) The address value may be incorrect if the program loads any of these phases above or below its link-edited origin address. If the EXEC statement has no operand, job control places in this location the highest ending address of all programs just link-edited.
44	Length of the problem program label area.
46	The low order byte identifies the partition (see Appendix B), and equals the displacement from the start of the PIB to the start of the PIB of the partition (without AP). The PIK from BGCOMREG changes during system operation and contains the PIK of the active partition (whichever one is active). The PIK in the FnCOMREG remains unchanged.
48	End address of virtual storage.
52	Machine Configuration Byte (Values set at supervisor generation time) Bit 0: Always set to indicate standard storage protect 1: 1=Decimal feature (always set) 2: 1=Floating point feature 0=No floating point feature 3: 1=Always set to indicate Physical transient overlap 4: Always set to indicate standard timer feature 5: 1=Channel switching device 0=No channel switching device 6: 1=Burst made on multiplex channel support 0=No burst mode on multiplex channel support 7: Indicates MCH/CCH in system.

Figure A.6 Supervisor Communications Region (Part 2 of 7)

PARTITION COMMUNICATION REGION (. . . . Cont'd)

Displacement (Dec)	Meaning
53	System Configuration byte Bit 0: 1=DDMMYY 0=MMDDYY (Date convention bit set at generation time by STDJC) 1: 1=Two or more partitions 0=One partition only supported 2: 1=DASD file-protect supported 0=No file-protect support for DASD 3: 1=DASD SYSIN-SYSFIL 0=No DASD SYSIN-SYSFIL 4: 1=Teleprocessing 0=No teleprocessing 5: 1=Two or more partitions 0=One partition only supported 6: 1=Asynchronous processing 0=No asynchronous processing 7: 1=Track Hold 0=No Track Hold.
54	This byte contains the standard language translator I/O options (set by STDJC macro). Bit 0: DECK option — 1= yes, output object modules on SYSPCH 1: LIST option — 1= yes, output source module listings and diagnostics on SYSLST 2: LIST X option — 1= yes, output hexadecimal object module listings on SYSLST (compilers only) 3: SYM option — 1= yes, output symbol tables on SYSLST/SYSPCH 4: XREF option — 1= yes, output symbolic cross-reference list on SYSLST 5: ERRS option — 1= yes, output diagnostics on SYSLST (compilers only) 6: CHARSET option — 1= 48, input on SYSIPT is 48 or 60 character set 7: Reserved.
55	This byte contains the standard supervisor options for abnormal EOJ, Relocating Loader and Control statement display and the indicator for the presence of the ASCII-EBCDIC and EBCDIC-ASCII translation tables. Bit 0: Always on 1: DUMP option — 1= yes, dump registers and storage on SYSLST 2: Reserved 3: LOG option — 1= yes, list all control statements on SYSLST 4: Not used 5: Not used 6: Relocating Load option — 1= yes, Relocating Loader supported 7: ASII option — 1= yes, ASCII supported.
56	Job Control byte Bit 0: 1= Job accounting Interface (JA) is not supported 0= Job accounting Interface (JA) is supported 1: 1= Return to caller on LIOCS disk open failure 0= Do not return to caller on LIOCS disk open failure 2: 1= Job control input from SYSRDR 0= Job control input from SYSLOG

Figure A.6 Supervisor Communications Region (Part 3 of 7)

Displacement (Dec)	Meaning
56	Job Control byte (. . . . Cont'd) Bit 3: 1= Job control output on SYSLOG 0= Job control output not on SYSLOG 4: 1= Cancel job 0= Do not cancel job 5: 1= Pause at end-of-job step 0= No pause at end-of-job step 6: 1= SYSLOG is not a console printer-keyboard or a Model 125 video display unit 0= SYSLOG is a console printer-keyboard or a Model 125 video display unit 7: 1= SYSLOG is assigned to the same device as SYSLST 0= SYSLOG is not assigned to the same device as SYSLST.
57	Linkage control byte Bit 0: 1= SYSLNK open for output 0= SYSLNK not open for output 1: 1= $ or FG program phase deleted, renamed, or cataloged (flag bit for $MAINEOJ) 2: 1= Allow EXEC 0= Suppress EXEC 3: 1= Catalog linkage editor output 0= Do not catalog linkage editor output 4: 1= Supervisor has been updated 0= Supervisor has not been updated 5: Reserved 6: 1= Reallocate or condense in progress (only significant in BG comm.reg.) 7: 1= Fetch $MAINEOJ at end-of-job to update system directory 0= Do not fetch $MAINEOJ at end-of-job for update.
58	Language processor control byte. This is a set of switches used to specify non-standard language translator options. The switches within the byte are controlled by job control OPTION statements and when set to 1, override standard options. The format of this byte is identical to the standard option byte (displacement 54) with one exception: Bit 7 in this byte is used to indicate to LIOCS that the rewind and unload option has been specified.

59	Job duration indicator byte
	Bit 0: 1= Job in progress
	0= Job not in progress
	1: 1= Dump on an abnormal end-of-job condition
	0= No dump on abnormal EOJ
	2: 1= Pause at EOJ step
	0= No pause at EOJ
	3: 1= Job control output on SYSLST
	0= Output not on SYSLST
	4: 1= Job is being run out of sequence with a temporary assignment for SYSRDR
	0= Conditions for 1-setting not met
	5: 1= PCIL is being condensed
	0= PCIL is not being condensed
	6: 1= //DATE statement processed for current job
	0= No //DATE statement processed for current job
	7: 1= Batch command just issued
	0= Condition for 1-setting did not occur.

Figure A.6 Supervisor Communications Region (Part 4 of 7)

PARTITION COMMUNICATION REGION (. . . . Cont'd)

Displacement (Dec)	Meaning
60	Binary disk address of the volume label area (label cylinder).
62 76	As illustrated (For detailed figures see index).
78	Set to the value nn specified in the LINES= nn parameter of the STDJC macro.
79	The format of the system date contained within this field is determined by the IPL program from information supplied in the date convention bit (displacement 53). Bytes 85-87 contain the day count.
88	Bytes reserved for use by LIOCS. Transient dump programs insert a key to indicate to the LIOCS end-of-volume routine, $$BCMT07, that it was called by a B-transient.
90	Address of the first part of the program information block (PIB) table.
92	ID number of the last checkpoint. Byte 92 is also the temporary indicator of file protected DASD. Bits 0-6 correspond to channels 0-6. A bit ON means DASDFP for that channel. Bit 7 indicates 2321 DASDFP support. Byte 93 is used at IPL time by PIOCS.
94	Job zone for Time of Day. If ZONE=EAST, value is positive; if ZONE=WEST, value is negative.
96	Address of the disk information block (DIB) table for the partition.
98	Reserved.
100 104	Address for PC, IT, and OC option tables.
106	Key of the program that has internal timer support. The key is the same as the PIK for the timer supported partition. If multiple partitions all have timer support it is initially X'0010' but may be changed to the PIK of another partition by the TIMER command. It is copied into all partition communications regions. If no partition has interval timer support, these bytes contain X'0000'.
108	Reserved.
110	Logical Transient Key (LTK) contains the same value as the PIK (PID) (Displacement 46) when the logical transient is requested. When the transient area is not in use, LTK is equal to zero. The SVC2 routine sets the LTK. (See Appendix B for a description of the LTK). The SVC11 routine resets the LTK, (only significant in BG communication reg.)
112	Address of SYSPARM field.
116	Address of Job Accounting partition table.
120	Address of the Time of Day Clock common area.
124	Address of second part of program information block (PIB) table.
126	Address of PDTABB, table of DTF addresses for MICR support.
128	Address of QTAM vector table (IJLQTTAD).
132	Address of background communications region.

Figure A.6 Supervisor Communications Region (Part 5 of 7)

Displacement (Dec)	Meaning
134	Option Indicator byte
	Bit 0: Reserved 1: 1= EU interface active 0= EU interface inactive 2: 1= Teleprocessing request 0= No teleprocessing request 3: 1= Supervisor support for tape 0= Supervisor does not support tape 4: Reserved 5: 1= RETAIN support generated 0= RETAIN support not generated 6: 1= Linkage to Channel En d Appendage Routine allowed 0= Linkage to Channel End Appendage Routine not allowed 7: 1= GETVIS function has been initiated 0= GETVIS function has not been initiated.
135	System Configuration byte 2 and RMSR Open Flag byte
	Bit 0: 1= PCIL supported 0= PCIL not supported 1: Not used 2: 1= PFIX macro supported 0= PFIX macro not supported 3: 1= Fetch **$$**OPEN by **$**JOBCTLJ 4: 1= Fetch **$$**OPEN by **$**JOBCTLD 5: 1= Fetch **$$**OPEN by **$**JOBCTLJ for WAITM 6: 1= QTAM supported 0= QTAM not supported 7: Not used
136	Pointer to Option table in SYSCOM. Reserved for compatibility reasons.
140	Standard Job Control Option byte
	Bit 0: 1= EDECK Standard Option 1: 1= ALIGN Standard Option 2-7: Not used.
141	Temporary Job Control Option byte
	Bit 0: 1= EDECK Temporary Option 1: 1= ALIGN Temporary Option.
142	Disk Configuration byte
	Bit 0-4: Not used 5: Not used 6: 1= 3330 supported 0= 3330 not supported 7: Always 1; indicates 2311 and 2314/2319 supported.
143	Catalogued Procedure Name.
151	Interface byte for Catalogued Procedures
	Bit 0: 1= Procedure being executed 1: 1= Overwrite processing 2: 1= Procedure with data 3: 1= Overwrite request for Job Control

Figure A.6 Supervisor Communications Region (Part 6 of 7)

PARTITION COMMUNICATION REGION (. . . . Cont'd)

Displacement (Dec)	Meaning
151	Interface byte for Catalogued Procedures (. . . . Cont'd) Bit 4: 1= Insert request for Job Control 5: 1= Procedure end 6: 1= SYSLOG procedure 7: 1= Overwrite request for Supervisor.
152	JCL statement name for Catalogued Procedure.
159	SYSIN 81 bytes indicator Bit 0: 1= Permanent 81 bytes on SYSRDR 1: 1= Permanent 81 bytes on SYSIPT 2: 1= Temporary 81 bytes on SYSRDR 3: 1= Temporary 81 bytes on SYSIPT 4-6: Not used 7: 1=Allow /&for MAINT CATALS.

Figure A.6 Supervisor Communications Region (Part 7 of 7)

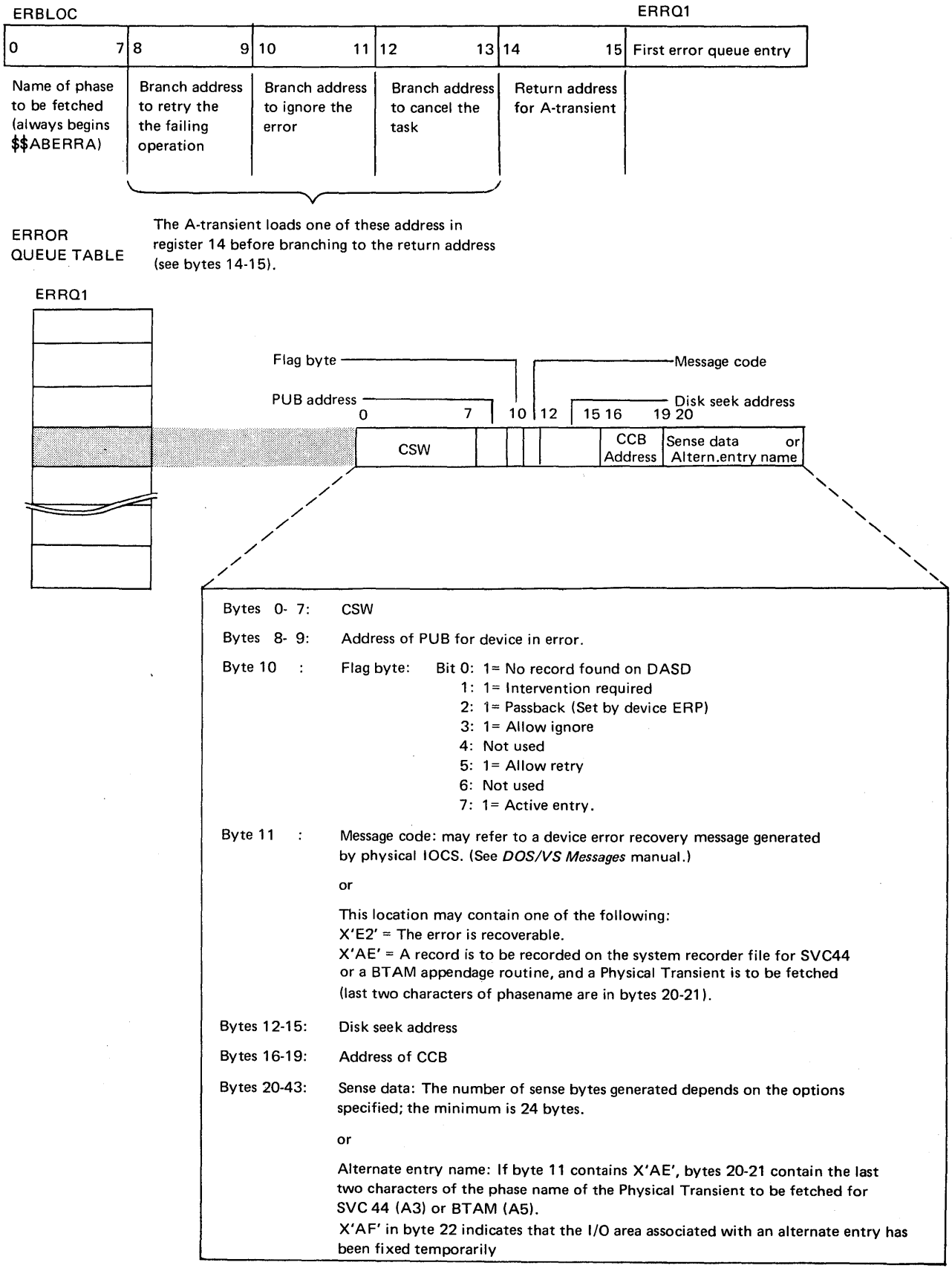


Figure A.7 Explanation of the contents of the Error Block and an entry in the Error Queue

NOTE: This is only a portion of a storage dump. It contains enough information to serve the purpose intended.

NOTE: Address of COMREG is X'04A0'

```
GR 0-1   00000003 CC009532
GR 2-3   0000001F CC0030B8
GR 4-5   030047FC CC008CCE
GR 6-7   CC000816 CCC02DC8
GR 8-9   C0001044 40CC0948
GR A-B   C0002E7C CC001CC0
GR C-D   0002CCC CC003CC0
GR E-F   C00081E2 C00091E2

EXT OLD  0000000C CCCCCCC0
EXT NEW  040C0CCC CCCCCA96
EXT INT  00000000
SVC OLD  070D0000 C0040C38
SVC NEW  040C00CC CCCC0A52
SVC INT  00020007
PGM OLD  070D2000 CC00600A
PGM NEW  000C0000 CC0081DC
PGM INT  C0060011
MCK OLD  071D000C CC041F90
MCK NEW  04080000 CC00A85E
MCK INT  40002C86 CC030070
I/C OLD  070F0000 CC000834
I/C NEW  040C0000 CC0009D0
I/C INT  6000000C
CSW      00000000 C4CCC000
CAW      10002DC8
TIMER    FAF2F7CC
```


Appendix B. Storage Print (Part 1)

BLOCK 506

```
0FD000  00C0C000 CCCCC000 C0CCC0C0 C0C00000 0C000C00 00000C00 0000000C 000CCC00
0FD020  00C00000 CC000C00 C0CCC0C0 CCC00000 CC0C0C00 C0000000 C000000C 00C0C000
0FD040  C0000000 CC0CCCC0 C0CCCCC0 CCC00000 0C000C00 C0000000 00000000 00C0C000
0FD060  C000000C CCCCC000 0CCCC0C0 CCC00000 0C0C0C00 C0000000 CC0C000C 000CC000
0FD080  00000000 CC000000 CCCCC0C0 CCC0CCC0 CC0CCCC0 C0000C00 C000000C 00000000
0FD0A0  00000000 C0000C00 CCCCCCC0 CCC000C0 0C0C0C00 C0000000 00000000 00000000
0FD0C0  C000000C CCCCC000 0CCCC0C0 0C000000 0C000C00 C0000000 C0000000 00C0C000
0FD0E0  C000000C CCCCC000 0CCCC0C0 C0000000 0C0C0C00 C0000000 CC000000 00CCC000
0FD100  00000000 CCC0C000 CCCCC0C0 C0C00000 0C000C00 00000000 00000000 00C0C000
0FD120  C000000C CC0CC000 00CCC0C0 00C00000 0C000C00 C0000000 00000000 00C0C000
0FD140  00000000 CCCCCC00 0CCCCC00 C0C00000 0C0C0C00 C0000000 00000000 00C0C000
0FD160  C000000C CCCCCC00 CCCCCCC0 C0C00000 0C000C00 00000000 00000000 00C0C000
0FD180  00000000 CC0C0000 00CCC000 00C00000 0C000C00 00000000 00000000 00C0C000
0FD1A0  00000000 C000C000 C00C0000 C0C00000 0C0C0C00 C0000000 00000000 00C0C000
0FD1C0  00000000 CC0CC000 00CC0000 0CC00000 0C000C00 00000000 00000000 00C0C000
0FD1E0  00000000 CCCC0000 00CC0000 00000000 00000C00 00000000 00000000 00CC0000
0FD200  00000000 C0000000 00CC0000 00000000 0C000C00 00000000 00000000 00000000
0FD220  00000000 CC00CC00 C0CCC000 0C000000 0C000C00 00000000 00000000 00C0C000
0FD240  C000000C CCCCC000 C0CC0C00 0C000000 0C000C00 00000000 00000000 00CCC000
0FD260  00000000 CC000000 C0CCC000 00000000 0C0C0C00 C0000000 00000000 00000000
0FD280  00000000 C0000000 00CCC000 CCC00000 00000C00 00000000 00000000 00000000
0FD2A0  00000000 C0CCC000 CC0CC000 CC000000 0C000C00 00000000 00000000 00000000
0FD2C0  00000000 CC00C000 00CCC000 CC000000 0C0C0C00 00000000 00000000 00000000
0FD2E0  00000000 CC000000 C0CCC0C0 C0C00000 0C000C00 00000000 00000000 00000000
0FD300  00000000 C0000000 00CC0000 00C00000 00000C00 00000000 00000000 00000000
0FD320  00000000 CC00C000 00CC0000 00C00000 0C000C00 00000000 00000000 00000C00
0FD340  00000000 CCCCC000 C00CCCC0 C0C00000 00000000 00000000 00000000 00000000
0FD360  C000000C CC00C000 C0CCC000 C0000000 0C000000 00000000 00000000 00000000
0FD380  00000000 CC00C000 00CC0000 CC000000 0C000C00 00000000 00000000 00000000
0FD3A0  00000000 CC0CCC00 C00CC000 CC000000 0C0C0C00 00000000 00000000 00000000
0FD3C0  00000000 CCCC0000 C0CC0000 00000000 0C000C00 00000000 00000000 00000000
0FD3E0  00000000 C00C0000 00CC0000 00C00000 0C000000 C0000000 00000000 00000000
0FD400  00C00000 CCCCCC00 C0CCCCC0 CCC00000 0C0C0C00 00000000 00000000 00000C00
0FD420  0C00C00C CCCCC000 0CCCCC0C CCC00000 0C000C00 00000000 C00C0000 C00CCCC0
0FD440  00000000 CC0CC000 00CCC000 CCC00000 0C000000 C000C000 C000000C 00000C00
0FD460  00000000 C000C000 C0CC0CC0 CCC0C000 0C0C0C00 00000000 00000000 00000000
0FD480  00000000 CCCCC000 C0CCC000 CCC00000 0C00CCC0 00000000 C00C0000 00000C00
0FD4A0  00000000 C0C00000 C0CCCCC0 CCC0C000 0C0CCCC0 C0000000 00000000 00000000
0FD4C0  00000000 C00C0000 0CCCC0C0 CCCCC000 0C0C0C00 00000000 00000000 00000000
0FD4E0  00000000 C0CCC000 C0CC0000 CCC00000 0C000CC0 C0000000 000C0000 00000000
0FD500  00000000 CC00C000 00CC0000 0CC00000 0C0C0C00 00000C00 C000000C 000CCC00
0FD520  00000000 CC00C000 C0CC0000 CCCCC000 0C000C00 00000000 00000000 00000000
0FD540  00000000 CCC00000 00CC0000 0C000000 00000000 00000000 00000000 00000000
0FD560  00000000 CC00C000 0CCC0000 C0000000 0C000C00 00000000 0000000C 00000000
0FD580  00000000 CCC0C000 C0CCC0C0 CCC00000 C0C0C0C0 00000000 00000000 00000000
0FD5A0  C000000C CCCC0000 0CCCC000 00000000 0C000C00 00000000 000C0000 00CCC000
0FD5C0  00000000 C000C000 00CC0000 C0000000 0C0C0C00 C000C000 0000000C 00000000
0FD5E0  00000000 CC0CC000 C0CCC0C0 CCC00000 0C000C00 00000000 00000000 00000C00
0FD600  00000000 CCCCC000 C0CC0000 C0C00000 0C000C00 00000000 C00C000C 000CCCC0
0FD620  00000000 C0000000 CCCCC000 00000000 0C0C0C0C C0000000 C000000C 00000000
0FD640  00000000 CC0CC000 C00CC000 C0C0C000 0C000C00 00000000 00000000 00000000
0FD660  00000000 CC000000 C0CCC0C0 00C00000 0C000C00 C0000000 00C00000 00000C00
0FD680  00000000 CC0CC000 00CCC000 00C00000 0C0C0C00 00000000 C0000000 00000000
0FD6A0  00000000 CC00C000 0CCCC0C0 CCCC000C CC000C00 00000000 00000000 00000000
0FD6C0  00000000 CC000000 C00C0000 C0C00000 0C000CC0 C0000000 00000C00 00C00000
0FD6E0  00000000 CC00C000 000C0000 C0C00000 0C000C00 C0000000 C000000C 00000000
0FD700  00000000 C000C000 CCCCCCC0 CCC0C000 0C000C00 00000000 00000000 00000000
0FD720  C000000C CCCC0000 0C0C0000 00000000 0C000C00 00000000 00000000 00CC0000
0FD740  00000000 CCCCCCC0 00CCC0C0 CCC0C000 0C0CCC00 C0000000 0C000000 00CCC000
0FD760  C0C0C00C CCCCCCC0 0CCCC0C0 C0B445D3 C0240174 003C48C8 F34C2070 F3B44078
0FD780  C030289C CC304C9C 4C380091 CC00791C C804F888 49382490 86040189 48382490
0FD7A0  812E05B6 812E04B6 812E03B6 812E02B6 0BC0871D 311547B1 486819BC 17C951B0
0FD7C0  0100EA4C 4862C0D1 51629ADC CC5C57C3 08705660 4972C4D1 407460D0 415280C0
0FD7E0  84CC01F4 867080F9 0C0C5831 867080FC 84CCFFE4 F3D470F0 A290DCFC 003F4D60
```

```
BLOCK 000

000000  09008219 2000004F 00000000 000091E2   000FD000 00001000 00000000 00000000
000020  07000000 C0040C38 000C2000 C0008248   071D0000 00041F90 070F0000 00000834
000040  000FD038 08000000 000FD030 C0000000   FAE79800 02509608 00080000 0000827E
000060  040C0000 C0000A52 000C0000 C00081F0   000C0000 000FD3AA 00080000 0000827E
000080  00000540 C000C000 C002C007 C0040005   12042003 00000000 00000000 00000000
0000A0  00000000 C0000000 20000060 000002C0   80000000 00000000 60000000 00000000
0000C0  00000000 C0000000 00CC0000 C0000000   00CC0000 00000000 FFFFFE19 D766F000
0000E0  00000000 C0000000 4000C086 00030070   00000000 00000000 0000DA78 00000000
000100  00000000 --SAME--
000180  00040A7C C005E1C5 000000FF 00000001   00040F69 40000000 8004082C 000411C0
0001A0  000409BE 00040C98 00067BED 40040F5A   40041D9A 000402E0 80041F44 00067BED
0001C0  004000FF C0008D80 FFFFFFFF FFFFFFFF   00CC0000 00000000 00000000 00000000
0001E0  00000000 00000000 00000000 00000000   0CC00000 00000000 C2000000 00000200
000200  08000004 00000000 04010000 10040A78   9F020001 FF008328 002425F0 46742896
000220  60403100 10041F90 C00DD700 00040A78   00040A7F 00040A88 E1C50001 00040A88
000240  00040A88 10041F8A 10041F9E 00000000   FF000010 FF000000 FF008B84 04088040
000260  00000000 F000BB80 E4000000 070DFFFF   000C0000 00000000 00000000 00000000
000280  00000000 --SAME--
0004A0  F0F761F1 F061F7F3 D000D000 00000000   00000000 00000000 E3C14040 40404040
0004C0  0006AFFF C004204F 00000CC0 00000010   000BCFFF FB5CCED2 8800CED0 00953081
0004E0  30883184 3185C000 2F442F4A 2F5038F0   F7F1F0F7 F3F1F9F1 00002E6C 00000000
000500  34300000 2EC42EF4 2F140010 00000000   00000000 00000000 00002ACC 2E0C0000
000520  00000000 04A014E0 C0000588 C0C00340   404C4040 40404000 40404040 40404000
000540  000048A8 C00028BA 075A0716 00003108   000020C8 00003688 000046DC 00005E18
000560  0000D000 C30047DC 000F002C 00050000   00004EA0 00002DF0 00000000 00004872
000580  608008C0 00000816 C0CC6D9C 00000000   00004854 00004878 00000010 00004F48
0005A0  00000000 C0005720 C0004994 00002AC0   00000630 00000000 00003152 00000000
0005C0  000081E2 00007308 00000684 00000000   0000A474 00006990 00002CCC 00002CF4
0005E0  00081018 2028C000 C00CC0CC CC000000   00000000 00002B8D 00000000 00000000
000600  00000000 CC000000 00000005 00C90001   00008D80 00008508 0000BA00 000049AC
000620  00004A0C 00000000 00000000 C003FFFF   00012345 014500C0 FF000045 0000AEC8
000640  0000A860 CC003040 00008B54 C0000000   000AC000 00001000 00002000 00003000
000660  0004104C 5C040FFA 00040088 00041888   00042888 000004A0 00004A20 000046DC
000680  00000700 C0000000 00000000 00000000   04E4053A 00000000 00000000 00000000
0006A0  00002B7C 00008E08 00010008 00020406   080A0C0E 00183048 607890A8 0000000B
0006C0  00000000 C0830083 00830083 00830083   00830083 00830083 00830083 00830083
0006E0  00830083 00830083 83838300 80010000   000062C8 00000000 0000A393 06B006B0
000700  06B006B0 06B006B0 4B8006AA 06B006B0   06B006B0 06B006B0 06B006B0 06B006B0
000720  06B006BC 06B006B0 06B006B0 41BB001F   41BB0010 18F69503 05854770 077C4590
000740  07F047F0 077C06B0 06B006B0 06B006B0   06B006B0 06B041BB 001F06B0 06B041BB
000760  00184570 C7C45890 055441F0 92861211   477C077C 41F093B0 94633006 42B0A001
000780  58B00654 9608A00F 07FF960C A00F4400   B5F6077F 9200050F 928306E5 92000599
0007A0  4560849C 41600816 07FF06B0 06B006B0   06B006B0 06B006B0 06B006B0 50B00000
0007C0  82000650 1B11D300 06783004 95FF3002   07871841 43403002 89400003 5A400564
0007E0  18A143A0 40074AA0 04FA5810 400007F7   92000585 92040681 92830CD3 94FE0582
```

Appendix B. Storage Print (Part 3)

BLCCK 001

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000800  07F9459C C0C69283 ACCC588C AC045C00  803C92CC 80309200 06819500 060F4780  .9...F........&.  ................
000820  092EAD03 CBE8S5C0 05854770 C978D205  CB82CB8D 489004FA DC05CB82 9CCCDD0A  .....Y........K.  ................
000840  CB7D0664 4780088A 1BAAACFC CBE843A1  CC0B42A0 0585940F 05854770 094C40A0  ..............Y..  ..............
000860  04CE4AA0 C51CBF93 ACCC4090 C01641AA  006C9283 A0005880 A0041288 4780BFF6  ..........  .....  .-............6
000880  917FA004 4770C992 9108A0CF 4710B394  588CA004 92140681 68008058 68208060  ................  ................-
0008A0  68408068 68608070 D2C7C660 8CC89898  801C92C8 06E182CC 06609603 00399603  . ...-..K..-....  ..........-.......
0008C0  00389101 C5814710 C94E58E0 C5C04150  EAEC9500 06F44780 09424830 060E1233  ..............&.  .....4..........
0008E0  4780093E 483004E0 584C06F8 95FF3000  478C093E 95FF3002 47800926 91183006  .........  .8....  ................
000900  47700926 95003004 478C0926 95B03004  474C0942 95E03C04 47B00942 DDC03004  ................  .  ................
000920  40004780 C9424130 3C0E47FC C8EC95C0  06F44780 082258E0 05C047F0 EAF84150  ..........C....  .4.........0.8.&
000940  EAE0ACFC CBE80595 82000038 43AA05E0  5AA005D8 50A005DC 4880A000 95858CCC  .....Y..........  ...Q&...........
000960  92878000 47D0C970 58FC0640 47F0F128  477C0980 47F0B570 58A005DC ACFCCBE8  .........C. .01.  .....0.........Y
000980  1B884380 AC024280 C4CF588C AC0447F0  08A84770 099C9273 A00007F6 58EC05C0  ..............C  ............6....
000C9A0 9103A0C4 4710E246 92040681 4770E230  9110A004 4710E25C 9104A004 4710E27E  ......S.......S.  ......S*......S.
0009C0  58E0067C 9108A004 471CE03A 47F00888  92380A35 95C00681 47800AB4 909E0660  ..........O..  ................-
0009E0  58900554 588CC0B8 48AC04CE 95C0C585  478C0A08 58B005DC 42A0B002 4AA004FA  ................  ................
000A00  58B0B0C4 47F00A30 4AAC04FA 4BA00A16  50B0A004 41AA0060 58B0A004 92CC0681  .....0..........  &.......-........
000A20  6000B058 6020B060 604CB068 606CB070  D2C7B008 0038D217 B0100660 90F8B028  -...-..-- ..--..  K.....K....-.8..
000A40  48600586 58BC0654 41CBB0C0 41DCB000  07F9909E 066047F0 0A729107 008847B0  .-..............  .9...-.O........
000A60  0A725890 C5884180 C66048C0 04CE45A0  90689220 0A3558B0 00884590 09E89551  .........-......  ..............Y..
000A80  00884720 C7104870 008A1A77 4877CC30  92C40681 07F79218 0A359500 06814780  ................  .....7.........
000AA0  0AB4909E C66058B0 00844590 C9E858E0  067C07FE 58900554 95380A35 078947F0  .....-.......Y..  ..............0
000AC0  0AAE9680 1C02941F 1C029405 1C03D401  1C041004 9140100C 47E00AF2 9140A00C  ..............M.  ..... .....2. ..
000AE0  47E00AF2 5880100C C57847FC CAEE920C  1C044880 04CE8880 00025A80 05A8BF1F  ...2.......O....  ................
000B00  80000786 56801C02 07F64B3C CB50950E  1C0747F0 0B9A4140 30021889 43804000  .........&...&..  ...O... ..... .
000B20  1848894C C0035A40 056495FF 40004770  0B1C4290 400007F6 48500584 12554770  ... ... .... ...  .... ..6.&......
000B40  0B5E4121 C00F4580 BF945870 10089180  1006477C C71095FF 700095FF 70071B33  ................  ................
000B60  18939501 C5854770 CB76433C 1C074190  00FF47F0 0B9E4390 10074330 A00D1A39  ................  ...C............
000B80  913E1006 477C071C 91011006 47800B0A  419000FF D5001007 A00E47B0 071C429C  ................  ....N...........
000BA0  CC164230 CC154250 CC145850 CC141823  1A224A20 04EC4332 00004930 CB4A4720  .......&...&....  ................
000BC0  071A4780 CAC28930 C0034A30 C4E0D3C0  06783004 07FE47F0 0BE458F0 059C58F0  .....B........L.  ........C.L.0...0
000BE0  F01C05EF 95FF0564 4780B60A 45E00B38  951C04CF 47700C00 918005AC 47100C08  0...............  ................
000C00  95D73004 47800710 95CC3004 47700CC0  91151002 47700CC0 91601C0C 47700CC0  .P..............  .........-......
000C20  58701008 91F67CC0 477C0CC0 91DF7C04  477C0CC0 D5017006 CCE04720 0CC09501  .....6..........  ....N...........
000C40  7007474C CCC05820 700C95FF 20004A20  7C060620 95FF2000 5880CCE4 9180800A  ... ............  ............U....
000C60  47100C70 414C007D 92CC06E1 47F0B60E  414C8068 5940CDE8 47400C80 5840CDEC  ..... .......0..  . ... .Y. ... ..
000C80  5040CDE4 941F800A 582C70C0 48407006  42408007 06404440 CCDADC200 80007000  & .U..........  .. . ... . ..K.....
000CA0  D2008004 7004D201 800E1006 96801002  41108008 94051003 92001004 47F00CE8  K.....K.........  ..............0.Y
000CC0  941F1002 94051003 92CC1004 92001005  918CAC04 47800CE8 95000585 47700CE8  ................  ........Y.......Y
000CE0  589005C4 4580901C 1B954390 C5641849  894CC003 5A400564 435004CF 50504004  ...D............  . ... ...&..&& .
000D00  92C00681 91401006 47100D12 D7011000  10004350 40004250 05645010 40C092FF  ..... ......P...  ...& ..&..&. ...
000D20  4000D300 06783004 9180100C 47100D5E  588C05A4 18734930 04E047B0 0D424870  .L..............  ................
000D40  30084B70 C4E08870 CC024877 80345A70  803CBF87 70004188 0001BE87 700095FF  ................  ................
000D60  30024770 CB164290 3C029103 30070776  18569198 30060775 95FF3002 07854820  ................  ................
000D80  30001B77 43703000 437706AC 5A70057C  91107000 4710B08C 9F002C00 47900DB0  ................  ................
000DA0  072695B0 3CC44780 0DBC95C0 3C040776  587C1008 95600678 47800ECC 95014006  ................  .....-........ .
000DC0  47200DCC 91203C06 471CC746 91041000  471C0FA0 95003004 47700CE0 928306E1  ................  ................
000DE0  95044006 4780B0A2 955C0678 47700E7E  95513004 47800E7E 45E0BF70 91248008  .. ......&......  ................
000E00  47800E20 58900554 91048008 47109736  95014004 47800E20 91018008 47800E40  ................  .. ............
000E20  95047000 47800FA0 507CCDB0 9208CDB0  437C3005 4270CDA8 4170CDA8 47F00FAC  ........&.......  ..............0..
000E40  5070CDB8 9208CDB8 91128008 47800E56  D207CDB8 801841E0 80149108 80084710  &...............  K...............
000E60  0E6641EE C00150E0 CDBC921B CDB09517  CDB84770 0E309203 CDB047F0 0E301B00  ......&.........  ..........0..-..
000E80  91F04004 47800FA0 95600678 47700FA0  95014006 47200EA0 9120A00F 47100746  .0 ......-......  .. ..............
000EA0  95003003 47700FA0 95034006 47200FA0  95C77C00 47800EC0 95137C00 4770074C  ..........  .....  ..............
000EC0  91407004 4780CFA0 18FA4BF0 CA16BFF3  F00C9140 F0384710 0FA04580 0F68D506  . .........C...3  C.. C..........N.
000EE0  50005C0A 4720074A 5C7C0048 18974180  70084570 C04C128F 4780074A B1FF0004  &.&.....&.......  ................
000F00  4770074A 59F0062C 4720074A D204CC24  800C95C2 40064740 0F5C43F0 CC2841FF  .....O......K...  .... .. .*.C....
000F20  000142F0 CC28D504 CC245CC2 4770074A  4185C018 4570C04C 128F4780 074AB1FF  ...O..N...&.....  ................
000F40  0C074770 C74A59F0 C62C4720 074AD507  50028000 4770074A 47F00FA4 44000F26  .......O......N.  &.........O......
C00F60  4770074A 47F00FA4 485CF060 41550060  95024006 47200F9A 47800F96 95014006  .....O...&0-...-  .. ..........  .
000F80  47700F8C 91A0F097 47ECCF92 9181F097  07484B50 CB4E4B50 CB4E4B50 CB4E07F8  ......C........C.  ...&.+.&.+.&.+.8
000FA0  BE770049 D3CCC048 4CC495B2 300447F0  B0309120 CDFC0716 9180CE00 4770B03C  ....L...  ......C  ................
000FC0  58E0CDF8 910A04D9 478CB00C 91010581  471CB00C 9620CEC0 5887CC00 48970006  ...8...R........  ................
000FE0  06904490 BC064199 CCC74090 E37E4180  E0FC5080 E3789205 E3784180 E3785080  ..........  .T...  ..&.T...T...T.&.
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BLOCK C02

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001000  004847F0 E030D2C0 E1028CC0 5880C574   589CCDFC 92040681 45790C0E 9130E416   ...0..K.........  .............U.
001020  47708028 94FBE0FC 947F30C6 92C00681   18F288F0 000843FF 06B45AF0 05705880   ..............2.  C........C....
001040  CAC00558 9CCC2CCC 47FCBC60 58800588   909B801C 189845A0 9C6004A0 989B901C   ..........C.-....  ..........-......
001060  0726589C C5544710 9736185A 4740963A   9015F004 96803006 91023C06 0786587C   ..............  ..0.............
001080  B0889602 7CCC07F6 CCCC4872 5C70B088   91027000 47E00DB0 91023006 47E00DB0   .......6....&...  ................
0010A0  07F59504 4CC44780 CFAC9103 700047B0   0FA0910F 40044780 B0C858E0 70C0D502   .5..  ........... .... ....H....N.
0010C0  CB68E000 47800FA0 D201CB64 ACC2BE77   CDD14170 CDC847F0 0FA04111 0CC09500   .........K.......  .J...H.0........
0010E0  05854780 C7104140 C07995FF C5644780   B60E45E0 0B389504 05854770 B10E95B2   ....... .......  ..............
001100  3004477C B10E4120 CC0C47F0 B1164820   05844322 CB775870 CB701A27 D2072000   ..........0.....  ..............K...
001120  300092FF 20029463 20C64030 2C081211   478CB162 94FC2007 91033C07 47E0B196   ..........  .....  ................
001140  4177000C 49307C08 477CB140 19724780   B19A9103 70074770 B1409603 700747FC   ..........  ....  .........  .....0
001160  B19A91C3 3C074780 B17294FD 200747F0   B19A95FF 30024780 B1969110 30C6471C   ..............C  ..............
001180  B1969180 300647E0 B1969601 30079601   200747F0 B19A9603 30071832 47F00CC0   ..............  ...C..........C..
0011A0  45E00B38 951004CF 477CB1CC 918005AC   478CB1C0 5010CABC 92FFCABC 47F0B1CA   ..............  ....&.........C..
0011C0  95B00678 C7465240 CABC5010 CC144570   07C41211 078658SC 055495FF CABC477C   ..........&.....  .D.............
0011E0  B2469104 100C4780 B2461853 4B5004E0   885CC002 5A5005B8 91FE5C01 47B0B246   ............&...  .&...&....&.....
001200  1874D502 CABD7001 4780B246 1E4795FF   400C0786 1B774370 40008970 00035A70   ..N.............  ..  ....... .......
001220  0564440C B2024770 B20C1B88 43804000   D2C04C00 7000D200 70000564 428C0564   ..............  .  K.  ...K.........
001240  92FF7007 07F695FF CC144780 B3164820   3CCC9110 30064710 B60A9180 30064780   .....6..........  ..............
001260  B30A9104 3C064770 B3CA9FC0 2CC047D0   B2881BFF 43F03000 43FF06B4 5AF00570   ..............  .....C........0..
001280  5930F00C 4770B60A 941F1002 94051003   9E0C2000 47A0B60A 4740B2DC 47109736   ..C.............  .........  ......
0012A0  91060045 4780B2B4 96020639 56F00640   47FCF264 95D03004 4780B2CC 95D73004   ..............0.  .C2..........P..
0012C0  4780B2CC 9570C044 478CB6CA 18EA4BE0   0A169519 E0070776 47F0B30A 4180B2A0   ..............  .........0......
0012E0  951004CF C7789180 05ACC788 95D73004   07789104 100C0778 58801C0C 41880000   ..............P..  ..............
001300  92081008 C57847F0 B2A0402C C0BA5890   055447F0 928618E1 18F49140 E00647E0   .......0..  .....  ...0.....4.  ....
001320  B34A9160 EC0647E0 B334D5C2 EC1DCC15   477CB352 58E0E008 9203E010 9203E028   ...-......N.....  ..............
001340  9201E017 9201E02F C7F6BDE7 CC154780   B24E95FF F0C04780 B24E1BFF 43FCF00C   .........6.X....  .+..0....+...00.
001360  89F00003 5AF00564 58ECF0C0 47F0B31A   1B004590 C0C69283 A0005880 A0045890   .0...0....0..0..  .....F..........
001380  802C1299 4780B38A 180950CC 8C0C92C0   800CC7F6 4400BF94 4780B3B0 440085F6   ..........&.....  ...6.........6
0013A0  4770B3F2 4560849C 416CC816 47F0B3F2   918CA001 4710B3F2 5880A004 487C04EC   ...2.-...-...0.2  .......2........
0013C0  5070802C 486004FA 96206008 95806000   478CB3DC 95816C00 4770B3E0 928360C0   &....-....-...-.  ......-.......-.
0013E0  41600816 95C004CF 478CBFF6 9281ACC0   07F6914C A0044780 B4069740 A0049783   .-.........6....  .6.  .......  ....
001400  06D79780 C8859204 06814590 C8F84110   CB5A58E0 05C04530 E8D64570 BFD24880   .P..........H8..  .........YO...K..
001420  04CE4A80 051CBF83 80C094BF 80864880   04CE8880 00025A8C 05A8D703 80C08000   ..............  ..........P.....
001440  47F0B44E 58F0059C 58FCF020 C5EF44C0   BF944780 B45E9583 06E54770 B5F69500   .0.+.0...C0.....  .........V...6..
001460  06D34780 C0C858F0 055C5880 067890F1   8028180F 41FF0008 50F0800C 96078008   .L...H.C.*.....1  ........&0......
001480  94F7A00F 4590C0C6 9283A000 44C0BF94   0786D700 050F04CF 97830CE5 588CA004   .7.....F........  ..P.........V....
0014A0  482004FA C202AC05 2C05BE87 2C094820   051C4BA0 0A165880 A004D203 A0042004   ....K...........  ..........K.....
0014C0  508200C4 4AAC0A16 C7F64400 BF944780   B4DA9505 05854770 07101831 457007C4   &.........6.....  ..............D
0014E0  D20100BA 30009180 100C0776 58900554   911C3C06 07169180 300647E0 92864820   K...............  ...............
001500  30009F00 2C0C4790 928618F2 E8F00008   43FF06B4 5AF00570 4920F00A 078647F0   ...........2.0..  .....C....C....0
001520  9286582C C5409505 05854780 B5D24121   00034580 BF941B33 43310001 1B444341   ..... .......K..  ...............
001540  00034940 06AA4740 07184123 40004920   CB4E47B0 07181810 41213C00 4580BF94   ... ... .... ...  .+.............
001560  5A400014 4430B56A 07F6D2C0 4CC010C0   582C054C D20004CF 201095AE 20184770   . .......6K. ...  ... K..........
001580  B58CD201 2C062024 47FCB5D0 D2012006   CBE24830 201844C0 07C69550 06784770   ..K.......C..K...  .S........F.&....
0015A0  B5D09551 30044780 B5D045E0 BF709120   800847E0 B5CA589C 05D4D501 80069006   ..............  .........MN.....
0015C0  4770B5CA 180947F0 B5DED2C1 2C06CBE4   0A054110 20005800 05D44590 C0C841B0   .......0...K....L  .........M...H..
0015E0  CCF45080 C5DC18B0 92CC06E9 92050585   0A2147FB 000AD5C0 04CF050F 478C071C   .4&........Z....  ......N.........
001600  9281A000 1B3347F0 B63A4140 C0831B33   95CC0585 4780B636 4570BA60 58805004   .......0...  ....  ..........-..&.
001620  47F0B648 484C0680 47FCB60E 4560B604   416C0816 07F74240 A0005880 A0041288   .0...  ...0...-..  .-...7.  ........
001640  07869108 AC0F0776 589C800C 06900690   91020089 4710B65C 06900690 1B935090   ..............  .......*......&.
001660  800C07F6 92C40681 9180100Z C7764130   00084140 008247F0 B6104820 04FA588C   ...6............  ...  ...0.........
001680  2008587C AC04D203 702C80CC D202800D   702547F0 B6A84820 04FA5880 2008587C   ......K.....K...  ...0............
0016A0  A004D2C3 7C0C802C 9C01802C 47F0B49C   47F086BE 58F0059C 58F0FC24 05EF44CC   ..K..........0..  .C...0...00.....
0016C0  BF944770 C7104560 B4924160 08169120   05810786 94DF0581 58E0067C 47F0E03A   .......-...-....  ..............0..
0016E0  58200014 12114770 B6FC94F8 2C3BC7F6   4550B724 D4001000 CC23C400 203S1C00   .........C......6  .&..M.....M.....
0017C0  07F6582C C0141211 477CB712 96042038   07F64550 B724D600 1C00CC23 D6CC2C39   .6.............  .6.&..0.....C...
001720  100007F6 5010CC20 9180CC21 47850006   1B114310 CC221A12 44050C00 07F6440C   ...6&..........  ..............6..
001740  BF944780 C70E9204 0681588C AC04455C   B7F847F0 B7DC4550 B76647F0 B7B64550   ..............&  .&.C...&...0...&
001760  B76647FC B7D44870 050447F0 B7E84550   B7869834 700047F0 B7864550 B7869834   ...C.M.....C.Y.&  .......0...&....
001780  700047F0 B7D44870 04CE4140 CC101B74   8A7CC001 4A7005C6 07F54550 B7AA47FC   ...0.M.....  ....  .........5.&...0
0017A0  B7B6455C B7AA47F0 B7D44870 C5C847F0   B7E84550 B7E41200 4780B7C4 41210047   ...&...0.M.....C  .Y.&.U.....D....
0017C0  4580BF9C 12334780 B7CE13C0 18149001   700C07F6 5880A004 4590B830 13335037   ..............  ...6.........&.
0017E0  000007F6 587CC594 488C04CE 88BC0001   1A789834 70C007F5 D2074CC0 8008D223   ...6............  .......5K.  ...K.
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BLOCK 003

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001800  4008802C D218402C 801C48A0 0A164390   A0058990 00054290 4C04D600 4C044002
001820  D2014002 AC065030 8C0C4AAC CA1607F5   48AC0A16 D2C1ACC6 40021E55 435C4004
001840  88500006 895CC001 425CA005 4AA00A16   943F4004 D200800A 4004D700 40044004
001860  D203800C 4004D21B 8010402C D223802C   400807F9 91F00021 47700710 9740A004
001880  978306D7 97800885 588CA004 12C047B0   B898D300 800904CF BC010650 4780B8A6
0018A0  96038008 C7F694FC 80C807F6 91F00021   47700710 1B9947F0 C0C61831 18104121
0018C0  C0034580 BF94947F 10025880 A0045000   80301311 4550B786 90017C00 1813582C
0018E0  00505520 CBAC4720 B9341512 47B0B932   501C0050 58500590 1F219500 50004780
001900  B914BF4F 5C011E42 BE4F5CC1 41550005   47FCB8FA 4570B976 4850CCD8 D200CCC9
001920  04CF1255 C7864950 04CE0786 181247F0   B9481F12 4570B976 485004CE 4950CDD8
001940  4770B948 9200CDD9 414C0005 58300590   413C3014 D2043005 30001B34 59300590
001960  4740B96C 5513C001 47DCB954 BE1F3006   42530005 07F65830 05904150 00054140
001980  0019D5CC 3CC004CF 478CB99E 95003000   4780B9A8 41330005 1B4547F0 B9824240
0019A0  B9A3D200 30003005 07F75830 00501B11   D500CDD9 04CF4780 B9DE5810 0590D500
0019C0  04CF1000 4780B9D8 950C10C0 4780BA3A   4111C005 47F0B9BE BF5F1001 1A354140
0019E0  03001B22 1D245880 A0045030 802C1200   07861211 4780BA0E D2041000 100595CC
001A00  10054780 BA124111 00C547F0 B9F89200   CDD94830 04CE4140 00101B34 8A300001
001A20  4A3005C6 58130004 121107A6 10119680   1002D707 30003000 07F61B22 5880A004
001A40  5020802C C7F691F0 00214770 07104580   BF9C07F6 95C00585 07861876 414C0083
001A60  585005DC 488C5000 42408000 92C00585   07F795C0 05854780 BA7E58A0 05DC5880
001A80  A004582C 8C0CD200 CB3D20C1 95072000   4780BA9C 4122000A 9200CB3D 5020800C
001AA0  58500014 914C5087 478CBAB8 B205CAE8   4780BAC0 94BF5087 1B001E11 47F0BBD0
001AC0  9801CAE8 8C00000C 9001CAE8 9823CAD8   1F134730 BAD80600 1B029823 CAF01B44
001AE0  1F134730 BAE806QD 1BC24144 CC014780   BAEC0640 1E1347C0 BAFE4A00 CD6E1A02
001B00  5040CB1C 9823CAE8 1F314730 BB100620   1B2041F0 00029001 CAE85E10 CAEC47C0
001B20  BB264A00 CD6E5A00 CAE846F0 BB1A5D00   CB249023 CAF85D20 CB145D20 CB244590
001B40  BC20D205 CACCCB2A 582CCB00 4E20CAE0   960FCAE7 F327CAD2 CAE0BFFC CAD64590
001B60  B8F050FC CB08D501 CAD6505E 4780B8BC   4590BC12 45908BD6 5840CB1C BFFC505E
001B80  4590B8F0 50F0CB08 9102503B 4710BBA6   4590BC12 D2015000 CB2AD201 5003CB2C
001BA0  D2015006 CB2ED207 CAD8CAF8 9101CB3D   4710BBD0 5810CB08 47F0BBD0 4590BC12
001BC0  4590BBD6 91C2503B 4710BBA6 47F0BB94   501C8030 07F6D205 504FCB2A 5820CB0C
001BE0  4E20CAE0 960FCAE7 F3275055 CAE007F9   8AFC0010 5CE0CB0C 1AF158E0 CB1012FF
001C00  4740BC0C 41440001 1BFEC7B9 1AFE0640   07F99823 CAD85D20 CB145D20 CB241A34
001C20  41330001 5D20CB18 893CC002 41220001   41FC016E 192F47D0 BC484133 0001182F
001C40  41F0016D 47F0BC34 9023CB00 1BFF921C   CB329103 CB074770 BC5E921D CB3241EC
001C60  000143FE CB30192F 47DCBC76 1B2F41EE   0C0147F0 BC625830 C8044CE0 CB264C20
001C80  CB281A3E 1A324E30 CAEC960F CAE7F357   CB2ACAE0 07F91B22 18E24321 00004142
001CA0  10031824 4580BF94 BD17062D 4740BCF0   18214830 04CE8830 00044133 CC29D200
001CC0  300004CF 968C069C 58EC05C0 45C0E4E4   182445C0 E4E441CB B0009200 300041E0
001CE0  00AFD605 CC29CC29 477CBCF0 947F069C   582C0540 91012CCA 4770BC3C D72B20C0
001D00  20C092AE 20CB12EE 4780BD1C 42E020D6   48EC06A8 41EE0001 40E006A8 D20120D4
001D20  CBDE5010 20C0D203 20C410CC 4CA020C8   92CC1002 58900554 47F09CBE 41F0B60A
001D40  12EE4780 B60AB134 C000C830 000B45C0   E53AB131 00008830 000B45C0 E53A41CB
001D60  B0C007FF 12114740 BD7C4780 BD729710   10055880 00149640 80B607F6 10114121
001D80  00034580 BF944880 04CE88BC CC025A80   05A85018 000047F0 BD729510 04CF4770
001DA0  07109180 C5AC4780 071C0571 07F692D2   80079620 800C0A30 4700BCC6 5870CDFC
001DC0  4177000E C7F791F0 00214770 07104110   CDF05800 CDFC4590 C0C647F6 00009283
001DE0  CB805890 CDFC4199 C00A5090 EC9C07F6   18311810 41210008 4580BF94 18134190
001E00  000147F0 C0C658E0 05CC47F0 E45858E0   05C047F0 E2961822 58301000 43201006
001E20  42230000 1A225A20 05B84600 BE3A92FF   3C00D401 20001004 07F6D601 20C01004
001E40  07F694FB 100007F6 58ECC5C0 41FEB000   47F0EBFA 58E005C0 41FEB000 47F0EDC2
001E60  58E005DC 58E0E0C0 47FCE0AE 58E005D0   58E0E000 47F0E1EA 58E0CBA4 47F0E000
001E80  58E0CBA4 47F0E16C 147858E0 05D058E0   E00047F0 E0009180 A0040716 41FC0004
001EA0  41100030 5880A004 950C0585 4780BEB8   588C05DC 58808004 50F18000 07F658E0
001EC0  05C098DF EA5E47F0 EFA658E0 05C098DF   EA5E47F0 EE6A58E0 05C01200 4770BEE6
001EE0  4530E8D6 C7F64850 04CE8850 C0015A50   EA1A5005 000007F6 589005C4 47F09B76
001F00  58900014 96029086 C7F658E0 05C041FE   BC0C47F0 EF3C1820 589005C4 4570988A
001F20  4110002C 47F0BEA4 588CA0C4 58F08028   D503F004 BF524770 07105890 059C587C
001F40  90284700 BF629280 F0029282 F00347F0   0816C9D7 D9F147F0 BF285890 059C587C
001F60  902C58F0 902805E7 47FC0710 47F00816   58FC05A4 18834930 04E047B0 8F824880
001F80  30084B80 C4E08880 C0024888 F0345A80   F03007FE D5020679 A0050788 B152C0CC
001FA0  4120BFBC 4770BFC6 435004CF 09555450   CBFC4950 04CE0782 47F0BFE8 1828B151
001FC0  00004780 BFA847D0 BFE84855 C00047F0   BFAE4880 04CE8880 00035850 CBA01E58
001FE0  1188BE8C 5CC007F7 95040585 47700718   9608CDFC 07F84110 C8529160 A0084780
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BLCCK 004

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002000  B44095CC C6D34780 C0C89285 AC009500   06E90786 58200540 D2012006 CBCA9140   . ...L...F......  .Z..... K......
002020  A0084710 B5D292E9 2C0692F1 200747F0   B5D21876 5880A004 95000585 4780C048   .....K.Z...1...C  .K.............
002040  588005DC 588C8004 588C804C 9046CC14   1B4418F4 D5038001 8001BF47 8C015940   ...4N..........  ...4N..........
002060  062C472C C0B69104 80044780 C0985864   00005460 CC104B60 CC0E1366 19064740   ..........-...-...  ...-...-.......
002080  C08C4144 CC041B06 47FCC06E 58440000   5940062C 4720C0B6 1A405860 06148C4C   .........O......  . ....... .-...
0020A0  00088940 CC034846 40041244 4740C0B6   8D4C000B 18F49846 CC141967 07774110   ... .... .... ..  . ...4..........
0020C0  002847F0 BEA41B33 414CC06F 55C006D3   4780B60E 920006D3 95000585 4770C10A   ...O..... .....L  .......L......A.
0020E0  4240A00C 54FCC6ED 950C04CF 4780C10E   582CA008 50902050 18929200 90585010   . ...O........A.  ....&..&......&.
002100  90704230 905947F0 C1129601 C5829601   06ED9203 05854180 CCE45080 05DC9206   .......OA.......  .........U&.....
002120  CBF3943F CB4348A0 0A1E487C AC024AA0   0A164177 70164A70 04EC95FF 70004780   .3..............  ..............
002140  C1469640 CB43910F 06ED4770 C15AD200   905ACBF3 D2009058 CB43D207 CBB810CC   A.. ........A.K.  ...3K..$..K.....
002160  94FBCBEF 94DFCB43 91C304D9 4770C1AC   1B88D503 CBB8CDA4 4780C1D6 D501CBB8   ..........R..A.  ..N.......AON...
002180  CDA44780 C1DA955B CBB84780 C1D29540   CBB84780 C2B891C0 CB4347B0 C1A2970C   ....A..$....AK.  ....B.......A...
0021A0  CBF3D502 CBB8CB6B 4780C1CE 5880CDD4   951C04CF 4780C1CA 18EA4BE0 0A16BF73   .3N....,..A....M  ......A.........
0021C0  E000912C 703947E0 C1E24180 01004188   010C4188 01C04188 01004188 05019620   ........AS......  ..............
0021E0  CB43BE8F CC0792C0 CCC695CB CBF34770   C20E18EA 4BE00A16 BF73E000 48707060   ..............3..  B..............-
002200  487700C7 E88C0018 1A78BE73 CC064170   CD20D506 CBB8CDF0 4770C220 4170CD48   ..............  ..N....O..B.....
002220  45E0C250 5850CD18 58550000 41700024   9823CBB8 955C5C00 4780C2B8 59305004   ..B&.&..........  .....*&...B...&.
002240  4780C2AC 41550014 467CC234 47F0C20E   BE77CD19 4110CBEC 0A0F9180 10024710   ..B.......B..0B.  ..............
002260  C2640A07 512C1002 478CC282 9506CBF3   478007B8 459007F0 18F641BB 001A47F0   B.........B....3  .......0.6.....0
002280  077C9120 CBEF078E 487CCCC6 41770001   407CCC06 D201CC09 CD6E5870 CBF84B70   ..............  ...K........8..
0022A0  06AA9592 7CCC4770 C25C07FE 59205000   4780C324 47F0C244 91C0CB43 47B0C2CC   ........B&....&.  ..C..0B.......B.
0022C0  970DCBF3 968BCB43 47FCC160 1859910F   06ED4770 C2DA5850 9050BD53 CD6E472C   ...3.....CA-....  ....B..&.&.....
0022E0  C2E81896 47F007F0 9500C48F 4770C2FA   1B110610 180147F0 C48ED506 CBB8CDF0   BY...O.O..D...B.  .......0D.N....0
002300  478007AC 910F06ED 477CC320 95419059   4770C320 92049058 58109070 92001010   ..........C.....  ..C.............
002320  47F00712 D20BCBC0 5C081B33 4330CBC3   06304C30 CD3E4850 CBCA1255 4720C346   .0..K...&......C  .......&......C.
002340  10554B30 C6AA1A35 910F06ED 4770C356   D213905C CBB8910F 06ED4770 C3769541   ..............C.  K..*........C...
002360  90594770 C3769210 9058902D 90745810   907C45E0 C7E418F3 1B228F2B CBC7BE2F   ....C...........  ....GU.3.....G..
002380  CC07943F CC098820 C006BE22 CC069823   CBC08C20 0008D704 CBCCCBCC 9180CBCA   ..............  .......P........
0023A0  4780C3FA 4050CBCA 910F06ED 4770C3BA   4C5C906E D2049070 CC069680 CBD04170   ..C. &.........C.  &..K...........
0023C0  CD3845E0 C25C4870 04FA484C C4CE5844   70044400 BF944770 C3DE5847 00084144   ....B&.....  ....  ........C.......
0023E0  00785870 CD38D201 CBD87004 92007000   5B470000 1A241A34 18421859 910F06ED   .......K..Q.....  $..............
002400  4770C40C 92049058 585C9050 BD53CD6E   4720C44A 18804780 C426BE27 80019283   ..D.....&.&....  ..D.....D.......
002420  A00047F0 C4449180 CBDC4780 C43CBE27   CBC04850 CBCA1155 4050CBCA 9824CBC0   ...OD.......D...  ...&.... &......
002440  90248000 189647F0 C7FC1810 41110000   1E031B02 12114770 C45E1812 1803910F   .......O.O......  ........D.......
002460  06ED4770 C4725910 062C4720 C4729602   06ED9180 CBD04780 C4801A41 5040CBCC   ....D.......D...  ........D...& ..
002480  910F06ED 4770C48E D2CD9078 CBCC47F0   C4B24150 CBB85880 05889098 801C1898   ......D.K.......C  D..&............
0024A0  488004CE 45A0906C 9898901C 12004740   C2FA182F 1BFF43F0 CBC39101 06ED471C   ..............  B.......O.C.....
0024C0  C5381A21 0620D501 CBB8CDA4 4770C4DC   59200560 47B0C4EC 47F0C538 488004CE   E.....N.......D.  ...-..D..OE.....
0024E0  4A80051C BF838C00 502C8024 4580BF94   9180CBD0 4780C538 18215840 CC384144   ........&.......  ......E.... ....
002500  C0084830 CD3E46F0 C50E4830 CBCA4B30   06AA1853 910F06ED 4770C520 920C9058   .......OE.......  ..........E.....
002520  0E241812 12FF4770 C538D6C3 CBCCCBCC   478CC722 47F0C6A6 18815870 CBA85830   ........E.O.....  ..G..OF.........
002540  CBB4910F 06ED4770 C56A9208 9058D204   907CCC06 90989010 D2039054 C8644137   ........E.....K.  ........K...H...
002560  00204147 C03092FF 400C4170 70081973   47B0C614 D20F7000 CC38BE87 70011828   ........ .......  ..F.K...........
002580  4A80CD3E 49F0CC0C 4780C5F0 910F06ED   477CC5E8 90783008 BE477C01 96047004   .....O....EO....  ..EY............
0025A0  48107006 4122C000 18821852 182858E0   05C045CE 04E441CB B0001825 81580000   ..............  .....U..........
0025C0  50540000 4144C004 92FF40C0 41580800   8A5C0008 8B500008 18751858 18871B15   &.........  .....  .&...&.........
0025E0  4720C5AA 98783008 46FCC56A 47F0C614   D2017006 CBCA9220 7C04D603 CBCCCBCC   ..E.....OE..OF.  K.........D.....
002600  4780C58C C6F05970 C6FC478C C676D207   700CCD40 587006F0 91047004 4780C62C   ..E..O....C..F.K.  ... ...O......F.
002620  483006A8 4A30CC0C 403C06A8 45E0C250   583C06F0 91043004 4780C670 58430000   ........ .....B&  ...O......F.....
002640  95FF4000 4780C664 5834C0C0 8A30000B   58EC05C0 45CE053A 41CBBC00 41440004   .. ...F.........  ..............
002660  47F0C64C 483C06A8 4B3CCC0C 403006A8   12FF4720 C53AD603 CBCCCBCC 4780C722   .OF ........ ...  ....E.O.......G.
002680  910F06ED 4770C692 920C9058 D2049070   CC064170 CD3845E0 C2505840 CD38483C   .....F.....K...  .........B&. ....
0026A0  CBCA1853 0E244830 CBD81233 4780C722   1B8841F4 000354F0 CBD4BDF7 CBD147B0   .........Q....G.  ...4...O.M.7.J..
0026C0  C748925A C6ECD6C0 C6ECFCC0 582F0CC0   12224780 C7225E20 CBCC1872 88700018   G...F.O.F.C.....  ....G...........
0026E0  5850CBD4 8D4C7C09 444CC766 5E70CBCC   4440C76A 910F06ED 4770C71A 41220CC0   .&.M. ... G.....  . G.......G.....
002700  88200008 1A221928 4780C71A 58E005C0   45CE0A86 41CBB000 188241FF 00044630   ..........G.....  ..............
002720  C6BA4150 C7F09101 06ED4710 C7469541   9C594770 C7429204 905845E0 C8204150   F..&.O......G...  ....G.......H..&
002740  07F05890 9C5C07F5 910F06ED 4770C756   D2049070 CC064170 CD3845E0 C25058FC   .O...&.5......G.  K...........B&.O
002760  CD3847F0 C6C28F70 200CBE70 2C00926F   A0009500 06D34780 C79E9200 06D39203   ...OFB..........  .....L..G.....L..
002780  058594F0 C6EDD203 90CC9054 4110CCE4   501C05DC 1B114310 905847F1 C8509601   ...O..K........L  &..........1H&..
0027A0  A00407F6 D200CBF3 905AD200 CB43905B   581C9030 82009008 D204CC06 9C70417C   ...6K..3..K....$  ........K.......
0027C0  CD3845E0 C25C5870 9048D20D CBCC9078   D213CBB8 905C47F0 C7B0D204 CC069070   ....B&....K.....  K....*.OG.K.....
0027E0  47F0C7CA 501090A4 503C90BC 18C343F1   0C0818AE 58E005D0 58EE0000 456E00AE   .OG.&...&......1  ..............
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BLOCK C05

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002800  180118EA 981D9070 12FF4780 C81A9200  101C5890 905047FC 07F05C00 90A807FE  ............H...  .....&.0.0&.....
002820  500090AC 920090AC 927F9CBC 58F09CA4  D2CBF008 90A858F0 A0045820 90A8584C  &.............0..  K.0....0.......
002840  90B04144 CC005020 F02C5040 F02407FE  47F0C7A4 47F0C7B0 47F0C7DA 47F0C7B8  ......&.0.& 0...  .CG..0G..0G..0G.
002860  47F0C7D0 C000253A 586C0540 95AE601B  477CE048 48F00586 95AF6C26 4770E048  .0G.....-. ..-.  .....C....-.....
002880  58206010 B132CC00 883CC00B 58E005C0  45C0E53A 1B334330 60148132 30038830  ..-.............  ..V.....-.......
0028A0  000B45CC E53A48C0 06A806C0 40C006A8  D2AF6010 603C94FE 60CA48A0 04FA4AA0  ....V.....  ...  K.-.-...-.......
0028C0  04CE98BD 06549101 601A47E0 C8D69680  05819285 CB819200 05854160 08169283  ........-...HO..  ...........-....
0028E0  06E95890 C554C7FF 91C1A0CF 47E00714  9608A00F 47F0B394 9101ACOF 4780C918  .Z..............  .....C.........I.
002900  94FEA00F 4550B7E4 BE48A001 4590C9DC  4590B830 4190B40E 9523AC01 0789951C  .....&.U.....I.  ................
002920  A0010789 95C004CF 0785A550 B7E41233  0789A5F0 078AD7C3 70007C00 D2007004  ..........&.U..  ...O..P.....K...
002940  A0015880 A0044550 B7F8D702 802C802C  D200802F A001947F 802F5040 803094F7  .......&.8P.....  K.........& ...7
002960  A00F9601 A00F4550 B766D707 70007000  487C0508 4550B7E8 D7077000 7000487C  .......&..P.....  .....&.YP.......
002980  04CE4140 C0101B74 8A7CC0C1 4A700506  D7077000 70C0D5C0 CCD904CF 4770C9A6  ... ............  P.....N..R....I.
0029A0  9200CDD9 C7F65870 C59CC540 D5C004CF  70004780 C9C29500 70004177 00050774  ...R.6.....  N...  ....IB.........
0029C0  07F6054C D2047C00 700547F0 C9B65884  0004D502 40050679 47F0C9E4 5880A004  .6. K......0I...  ..N. ....0IU....
0029E0  4400BF94 C7794880 04FA5880 80C807F9  415C0006 4170CC29 1BAABFA1 70004770  ..............9  .&.............
002A00  CA0C4177 CC014650 C9FA07F8 89A00004  1B225890 05C44540 99CC47F0 CA224120  ........&I..8....  .....D. ...C....
002A20  00014160 C8164AA0 C4FA45F0 CA5C926D  A0009200 06D19500 06DB4780 C9F007F8  ...-.......0.*..  .....J......IO.8
002A40  5010CC14 5070CC18 887C0004 4177CC29  95CC7000 4780CAA4 41F0CAA8 92007000  &...&.........  .........C......
002A60  D605CC29 CC294770 CA6E947F C69C58E0  A0084110 BCA85010 E00C5810 E0305840  0.............  ......&........
002A80  E03C413C 8CD6BD37 E01C50C0 E01C4770  CA9C1222 4780BC46 47F0BC52 12224780  .....0....&.....  .........0......
002AA0  BD5207FF 41880004 58E005C0 5810CC14  587CCC18 98BFE9B2 07F80C00 0CC00000  ..............  ......Z..8......
002AC0  00001044 C00036D2 07CCC7CC F0F7F1F0  F7F3F1F9 F15C0000 00083E1E 30A8E000  .......K....C71C  73191*..........
002AE0  00000000 CC00191F C00C0011 4A0227A1  0C0C0014 1DD76C00 00083E1E 30A8E000  ..............  .....P-.........
002B00  000000BF C0000049 0153EADD 00004650  018B820C 0083D600 000005B5 00000000  ..............&  .....0.........
002B20  00000D05 C0002710 0064F0F7 F1F0F7F3  001F1C1F 1E1F1E1F 1F1E1F1E 1F000000  ..........C71073  ..............
002B40  00CC0020 CC0CC000 CC0C00FE 00060018  000E5B5B C2C1E3E3 D5C15B5B C2C5D6D1  ..............  ..$$BATTNA$$BECJ
002B60  F340000D C2C74040 E2D740C6 C7D70000  0C0C3C34 00C03070 18003C24 30878787  3 ..BG  SP FGP..  ..............
002B80  87878080 80808082 01020304 C5005040  302C1000 000054E8 000054EC 000054EC  ..............&  .......Y........
002BA0  0C00550C CC0044AC C00C62C0 FF0000FF  00000100 00006987 5B5BC1C2 C5D9D9D5  ..............  ........$$ABERRN
002BC0  00000001 C0000002 0403C3A6 C0000000  000068AF 00FFFFFC 0025D9E9 C1C2C1F3  ..............  ..........RZABA3
002BE0  C1F5D9D1 C1C1E5F1 07CCCC00 C0C08000  0C0CC006 00002D00 000062D0 000000F0  A5RJAAV1........  ..............0
002C00  0000000F CCCC0002 0C04C300 00010800  000007FF 100404F4 000056C0 0CC00816  ..............  .......4........
002C20  00000000 C0000000 C00C0000 00C00000  0BD61370 144014CA 08021522 28E81664  ..............  .C... ........Y..
002C40  167A1696 18DE16B0 16EC1702 073010DE  1756175E 176E177A 179A17A2 187418AC  ..............  ..............
002C60  18BA11AC 1A4611A0 071C0710 07100710  07101A54 1A720710 07101782 071C071C  ..............  ..............
002C80  07100710 07100710 1C961D64 1D9A0710  1DB80710 07101DF0 19AA0710 1E061E0E  ..............  .......0........
002CA0  1E161E42 1E481E54 2C321E60 1E6C1E78  1E801E8A 1E961E8E 1ECA0710 07101ED6  ..........-....  ..............C
002CC0  1EF81F00 1F0AC710 10DA1F16 07100710  1F281F56 2B7D1000 00004F80 2B7E1000  .8..............  ..............
002CE0  00004FC8 2B7F1000 C0CC5058 2B800000  0C0C5138 2B811000 00005010 0CC00000  ...H......&.....  ..........&.....
002D00  07002C04 40000C06 31CC2C06 4C000005  080C2D08 00000000 080062C8 0C000800  .... ....... ...  ..........H.....
002D20  860062D0 6C000168 86006438 60000168  92002C06 20000005 860062D0 600005E0  ....-.......-...  ..........-.....
002D40  92002C06 20000005 86005A60 6C000168  86005BC8 60000168 92002C06 200C0005  ..........--....  ..$H-...........
002D60  0400497C 20000018 13CC2B3E 20CC0001  1A0C2B3E 60000005 16002B46 20000004  ..............  ....-...........
002D80  07002B44 40000006 39002B46 60000004  08002D88 00000000 1A002B3E 5C000005  .... .......-...  ..........&.....
002DA0  08002DA0 5B5BC2D6 930C2DA8 60C00001  08CC2DB0 60000001 08002DB8 00000000  ....$$BO....-...  ....-...........
002DC0  03002DB8 CCCCC001 01CC2B64 6CC00003  080CBE50 00000A01 0000D200 80182000  ..........-...  ...&......K.....
002DE0  005C0000 CC005518 CCCC5720 00005518  5B5BC2D6 C3D9E3C1 000050A8 00005A60  .&..............  $$BOCRTA..&....-
002E00  000050F0 C0000000 00CC0000 04A00000  00020008 00000C00 00000C00 04A00000  ..&0............  ..............
002E20  00020007 C000C0C0 001CCCC0 33900018  0C0CC000 00000000 00200000 32F00030  ..............  ............C..
002E40  C0000C0C CCCCC000 CC3C0000 32500048  00C00000 00000000 00400000 31B0006C  ..............&..  ..........  ....-
002E60  00000000 C0000000 005C0000 8000C1D9  00C0C000 00004A20 000E0A80 82C0C2C7  .........&....AR  ..............BG
002E80  80040000 CC004A90 800E0A80 80C0C6F4  800C7000 00004B48 00260A00 8000C6F3  ..............F4  ..............F3
002EA0  8000780C CCC04C00 003E0A00 8000C6F2  80008000 00004CB8 00560A00 8CC0C6F1  ..............F2  ..............F1
002EC0  80008800 C0004D70 006E0AC0 C0C00000  00CC0000 00000000 00C00000 00C00000  ..............  ..............
002EE0  00000000 --SAME--                                                         ....
002F40  00000000 CC0E263E 566E0ECA 0A0A0A0A  00FF00FF 01FF02FF 06FF10FF 10FFFFFF  ..............  ..............
002F60  FFFFFFFF 10FFFFFF 10FFFFFF FFFF10FF  10FF10FF FFFFFFFF FFFFFFFF FFFFFFFF  ..............  ..............
002F80  FFFFFFFF FFFFFFFF C6FFFFFF 10FFFFFF  FFFFFFFF 10FFFFFF 10FFFFFF FFFFFFFF  ..............  ..............
002FA0  FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF 06FFFFFF 10FFFFFF  ..............  ..............
002FC0  FFFFFFFF 10FFFFFF 10FFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF  ..............  ..............
002FE0  03FF03FF C4FF05FF 06FFFFFF 10FFFFFF  FFFFFFFF 10FFFFFF 10FFFFFF FFFFFFFF  ..............  ..............
```

BLOCK C06

```
003000  FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF 06FFFFFF 10FFFFFF  ................  ................
003020  FFFFFFFF 10FFFFFF 10FFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF  ................  ................
003040  C000FF0C CCCCCCCC C0CCC000 0250FF00  630C00F8 304C0000 0000FF00 0CCCCCCC  ..............&..  ...8............
003060  00000000 001FFF00 0CCC00F8 3064000C  025CFFC0 63C000F8 3070CC00 0CCCCCCC  ............8....  .&......8........
003080  0000070E FFFFFFFF C00CFFC0 110000F8  000DFF00 210000F8 0C0EFF00 420000F8  ...............&  .......8.......8
0030A0  001CFF00 11C000F8 001DFF00 210000F8  001EFF00 400000F8 001F0400 0C0080F8  .......8.......&  .... ..8.......8
0030C0  0110FF00 63000000 0111FF00 63000000  0130FF0C 62000000 0131FF00 62000000  ................  ................
0030E0  0132FF00 62CC0CC0 015CFF00 63C00000  0151FF00 63000000 0280FF00 53C300C0  .........&......  ..............C..
003100  0281FF00 53C3CCC0 025CFF00 630000F8  FF0CC000 00000000 FF000C00 0CCCCCCC  .....C...&.....&  ................
003120  FF000000 C0000000 FFCCCCC0 CCC000C0  FFCCC0CC 00000000 FF000C00 00000000  ................  ................
003140  FF000000 CCCCC000 FFCCCCCC CCC000C0  FF000001 00010001 00080C08 00080000  ................  ................
003160  00000000 C000C000 00000019 00000000  000C001F 00000000 00000000 00CC0000  ................  ................
003180  00000000 C000C000 01CC00C0 02000000  03CC0C00 04C00000 05000000 06000000  ................  ................
0031A0  07000000 C8C0C0C0 C9CCC0C0 FFC000C0  F0F761F1 F061F7F3 D000D000 00000000  ................  C7/1C/73........
0031C0  00000000 C000C000 D5D640D5 C1D4C540  000C00C0 00C00000 0000CC00 00CC0050  ........NO NAME   ..............&
0031E0  000BCFFF FB5CCED2 8CCCCE5C C0953C81  30883184 3185C000 2F442F4A 2F5038F0  .....*.K...&....  ..............&.C
003200  F7F1F0F7 F3F1F9F1 CCCC2E6C 00C00000  361C0000 2EC42EF4 2F140010 00CC0050  71073191........  .....D.4.......&
003220  C0C0000C CC00C000 CC002ACC 2E0C0000  00000000 04A010E0 00000588 C0CC004C  ................  ................
003240  40404040 4C404000 404C4040 40404000  F0F761F1 F061F7F3 D000D000 00000000  .       .       07/1C/73........
003260  00000000 C000C0C0 D5D640D5 C1D4C540  0CCCC000 00000000 00000000 00CC0040  ........NO NAME   ................
003280  000BCFFF FB5CCED2 800CCE5C 00953081  30883184 3185C000 2F442F4A 2F5038F0  .....*.K...&....  ..............&.0
0032A0  F7F1F0F7 F3F1F9F1 00002E6C 00C00000  3598C000 2EC42EF4 2F140010 00000040  71073191........  .....D.4........
0032C0  00000000 CCCC0CC0 00CC2ACC 2E0C0C00  000C0000 04A010E0 00000588 C0CC004C  ................  ................
0032E0  40404040 4C404000 40404040 40404000  F0F761F1 F061F7F3 D000D000 0CCCC00C  .       .       07/10/73........
0033C0  00000000 C0000000 D5D640D5 C1D4C540  0C0C00C0 00C00000 0C000000 00000030  ........NO NAME   ................
003320  000BCFFF FB5CCED2 800CCE5C 00953081  30883184 31850000 2F442F4A 2F5038F0  .....*.K...&....  ..............&.0
003340  F7F1F0F7 F3F1F9F1 CC002E6C 00000000  352C0000 2EC42EF4 2F140010 00CC003C  71073191........  .....D.4........
003360  00000000 C0000000 00002ACC 2E0C0C00  00CC0000 04A010E0 00000588 C0C00040  ................  ................
003380  40404040 404040C0 404C4040 40404000  F0F761F1 F061F7F3 D000D000 00000000  .       .       07/1C/73........
0033A0  00000000 C0000000 D5D640D5 C1D4C540  000C0000 00C00000 00000000 000C0020  ........NO NAME   ................
0033C0  000BCFFF FB5CCED2 800CCE5C 00953081  30883184 3185C000 2F442F4A 2F5038F0  .....*.K...&....  ..............&.0
0033E0  F7F1F0F7 F3F1F9F1 CCCC2E6C CCC00CC0  34A80000 2EC42EF4 2F140010 00CC0020  71073191........  .....D.4........
003400  00000000 CC0CC000 C0CC2ACC 2E0C0000  00000000 04A010E0 00000588 C0C00040  ................  ................
003420  40404040 40404000 404C4040 40404000  00CCC000 000000FF FF000000 00000000  .       .       ................
003440  00000000 CCCCCCC0 CCCCCCC0 CCC00CC0  005C0CC0 00000000 00000019 00000000  ................  .&..............
003460  C0000000 CCCCC000 00510000 00000000  000C0019 03E80000 00000000 00C00000  ................  .....Y..........
003480  00790000 C0000000 00000013 03E80CC0  000C0000 00000000 00500000 00000000  ..............Y..  .........&......
0034A0  00000019 C0000000 0CCCC000 CC0000FF  FF0CCCC0 00000000 00000000 00000000  ................  ................
0034C0  00000000 CC0CC000 005C0000 00000000  00CC0019 00C00000 00000C00 0CCCC0CC  .........&......  ................
0034E0  00510000 C0000000 00000019 03E8C000  00000000 00000000 0079C000 00C00000  ..............Y..  ................
003500  00000013 C3E80CC0 CCCCC0CC C0C00000  00500000 00000000 00000019 00000000  .....Y..........  .&..............
003520  00000000 CCCC0C0FF FFCC0000 00000000  000C0000 00000000 00000000 0CCCCCCC  ................  ................
003540  00500000 C0000000 00000019 C0C00000  000CC000 0000000C 00510000 00C00000  .&..............  ................
003560  00000019 C3E8C000 CCCCCCC0 C0C000C0  0079C000 00000000 00000013 03E80000  .....Y..........  ..............Y..
003580  00000000 CC00C0C0 005C0000 00000000  00CC0019 00000000 00000000 0CC000FF  .........&......  ................
0035A0  FF000000 C0000000 000CC000 C0000000  0C0CCC0C 00000000 005C0000 00000000  ................  .........&......
0035C0  00000019 CCCCC000 CCCCCCCC CCC00000  00510000 00000000 00000019 03E80000  ................  ..............Y..
0035E0  00000000 C0CCC000 00790000 00000000  000C0013 03E80000 00000000 00000000  ................  .....Y..........
003600  00500000 C0000000 000C0019 C0C00000  000C0000 000000FF FF000000 00C00000  .&..............  ................
003620  00000000 CCCCCCC0 C0CCCCCC CCC0CC00  005CC000 00000000 00000019 00000000  ................  .&..............
003640  CCC00000 CCCCC000 00510000 C0000000  00000019 03E80000 00000000 00CC0000  ................  .....Y..........
003660  00790000 C0000000 000C0013 03E80000  000C0000 00000000 00500000 00C00000  ..............Y..  .........&......
003680  00000019 CCC0C000 482CC0BA 47F09C1A  588C0588 9098801C 189845A0 90649898  ..............0..  ................
0036A0  901C18FF 43F000BA 43FF06B4 5AF00570  592CF008 477096D6 9815FC04 9580304C  .....0.......0..  ..0....0..0.....
0036C0  478096D6 18A5D300 067830C4 5880CAC4  05589106 00454780 9C5A58F0 064047F0  ...0..L........C  ..........0. .0
0036E0  F26495FF 30024780 9C784BA0 0A1648F0  A00C40F0 0016D201 04CEA00C 4AA00A16  2..............C  .. 0..K.........
003700  91010639 47E09088 58FC0640 47F0F34E  12114780 91405010 CC189140 100C4780  .........C. .03+  ..... &.... ....
003720  91289180 C5AC4780 90AA95D7 3C044780  90BE5880 00149102 8C864710 90BE9140  ............P....  ................
003740  A00C4780 9128920C 0681BE37 C03D9160  1C0647E0 90EE5800 00405000 CC145890  ..............-  ......... &.....
003760  05C44570 9882BEF7 C0415810 101C58E0  05C04150 EA6A5880 100C0578 47F09424  .D.....7........  ...&.........0..
003780  47F09128 582C0540 910120CA 47709128  44CCBCFC 92AE20CB 403020C8 D20720C0  .0.....  ........  ........ ..HK...
0037A0  1000D201 20D4CBE0 456C9DBE 4860C586  92CC0681 5810CC18 91601C06 47E09140  ..K..M...-...-..  .........-.....
0037C0  5800CC14 5CCCC040 D501C044 CD1C4780  942CD501 0044CD1E 4780942C 95333004  ....&.. N.......  ..N.............
0037E0  47809164 95343C04 4770917A 91803005  478C917A 91800600 0786947F 06C047F0  ................  ................0
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BLOCK C07

```
003800  97429102 C0444710 97429139 00454770   97429180 00444780 920E9604 00449500   ................ ................
003820  30044770 920E910A 04D9C776 47F091E2   911CCDFC 47E09188 58140000 47F0942C   .........R...0.S ............C..
003840  9120CDFC C7169608 CECC9108 C0444710   920E9180 CE000716 58E0CCF8 9283CB80   ................ ...........8....
003860  4170BDAE 5070E09C 07F6488C 04FA9580   80C04780 92029102 80084780 91FA9610   ....&....6...... ................
003880  80089581 800C4770 92069283 8C009642   8008457C 07C49110 00444710 92449500   ..........D..... .....D..........
0038A0  00444770 923A9180 C0450786 9601AC00   95B03004 47809564 95C03C04 47809564   ................ ................
0038C0  07F6D602 C0410041 477C942C 94773006   920C0681 95500044 07869124 00444780   .6C..........   .....&..........
0038E0  95649540 067847B0 92789504 C0444770   927858F0 059CBFFF F0384780 9278058F   ...  ............ ...0....0.......
003900  91043006 47809564 D6011004 C0449463   30069550 06784770 92AE9551 30044780   ........0....... ...&............
003920  92AE9501 4C044780 92AE45E0 BF709120   80084710 97429180 100C4710 928A9200   ....  ........... ................
003940  30039680 10024380 40C45480 CC004770   92FE1B88 43804007 88800002 5A8005A8   ........ ....... ...... ........
003960  58880000 12E84780 92F69120 1C064780   92F29604 A00447F0 92F69680 80029601   .........&...... .2.....0.6......
003980  A00047F0 932E4388 05E05A80 05D84880   80009601 80009500 05854780 932E5850   ...0.........Q.. ..............&
0039A0  05DC4980 5C0047B0 932E4880 50C09283   800C92C0 05859582 300447F0 93549120   ....&........&... ...........0....
0039C0  CE004710 934C9504 4C044770 9354A680   300607F6 94DECE00 45509726 18FF43F0   ........ ........ ...6.....&.....0
0039E0  00BA43FF C6B45AF0 05705930 F00C4770   9380D703 F004F004 493004E0 47B09380   .......0....0... ..P.0.0.........
003A00  48803008 5080F00C 92FF4007 43803002   435C4000 42503002 43500564 42504000   ....&.0... ..... .& ..&...&...& .
003A20  42800564 92E306DD 912C10C6 478093B0   589C05C4 458098C8 455093C8 58F00640   ................ ...D...H.&.H.0.
003A40  9150FD43 47E09564 94AFFD43 47F09000   493C04E0 47409412 91033007 07B55870   .&...........0.. ..... ..........
003A60  CB701888 4177000C 493C7008 47709402   91037007 474093FA 94FC7007 96033007   ................ ..... ..........
003A80  07F51288 47709402 18875970 CB744770   93DC1278 078547F0 93F01873 48307008   .5.............. ........0.0......
003AA0  40707008 94FC3007 47F093D6 5810CC18   47F09244 12114780 95644870 0C46407C    ........0.C.... .0.............
003AC0  10005870 C0409144 100C4770 944ABE77   100DD601 10040044 95034C06 47209550   ..... .......... ..0....... ....&
003AE0  95600678 477094A8 58FC0014 45800F68   41805006 D5005006 50134770 949C9201   .-........C..... ..&.N.&.&.......
003B00  50060680 D5C05005 50114770 949CD200   50055012 48805002 41880001 40805002   &...N.&.&.....K. &.&...&..... .&.
003B20  47F094A8 43580000 41550001 42580000   585C0014 1BC09220 94C39501 40064720   .0.............. .&........C.. ...
003B40  9550474C 94C29210 94C39120 5C9F47E0   94CE4A00 CC0C4B70 06AA1887 4570C04C   .&. .B...C..&... ..............
003B60  9561F00C 47709550 4A00CC0C 4570C04C   955CF000 47809548 95004C06 47809500   ./0....&........ .*0..... .....
003B80  91A05097 47E09510 91815097 47B09510   954EF0CC 47809544 9550FC00 47709550   ..&........&..... .+0.....&0....&
003BA0  9111509F 47E09528 95C14006 47809550   956C0678 47709538 9620A00F 47F0953C   ..&....... ....& .-..........0..
003BC0  96203006 91805097 47809548 96045097   96401002 96011004 91270044 47709286   ......&.......&. . ..............
003BE0  91041002 4780928A 96043006 18561B88   438C00BA 438806AC 5A80057C 95C03004   ................ ................
003C00  47809598 95B03004 478C9598 91108000   47EC9598 91023006 478095F0 94FD8000   ................ ...........0....
003C20  1BFF43F0 C0BA43FF 06B45AF0 05705830   F00C4930 04E047B0 95B64830 30081803   ...C........C... 0.............
003C40  05504930 04E047B0 95C64830 30084130   3008D5C0 300000BA 47D095F0 5830F000   .&........F..... ..N.........0..0.
003C60  455095F0 493004E0 478C95E8 48303008   193C07B6 41303008 91033007 4710961C   .&.0........Y.... ................
003C80  95FF3002 07854570 07C49160 100647E0   0D729198 30060775 589005C4 45809C0C   .........D.-.... ...........D....
003CA0  47F00D72 5870CB70 4177C00C 49307008   477C9620 91037007 47709620 183747F0   .0.............. ..............0
003CC0  95FE9106 C04592FF F00B58F0 C6404780   96589602 0639D702 00410041 47F0F264   ........0..0. .. ......P.......02.
003CE0  95014004 47709668 9506F6EC 4780F342   95044004 47709684 91800044 47E09680   .. ........6...3. .. ............
003D00  9608CE00 47F0B044 58700048 913F0045   477C96BE 91AF0044 07869560 30044780   .....0..........  ..........-....
003D20  968E9551 300447D0 96BE9514 CC444770   96BE45E0 BF709104 800347E0 0FA09644   ................ ..............
003D40  800847F0 97365870 00484180 70085080   00404020 00BA9680 300647F0 90885830   ...0..........&. .  ........0....
003D60  F000D500 3000000A 47209564 BD213001   478C96F4 41303008 47F096DA 91033007   0.N.............. ...4.....0.....
003D80  47E0971E 5870CB70 4177C00C 49307008   47709700 91037007 47709700 91807006   ................ ................
003DA0  47E0971E 18374570 07C447F0 90449287   CB809504 05850775 92000585 07F5D201   .........D.0.... ............5K.
003DC0  0044CB4A D2020041 00495820 05409101   CE004780 97564550 972694DE CE009101   ....K........ .. ........&........
003DE0  20CA4780 97664550 9DFE47F0 C748D728   20CC20C0 921020CA 1B55BF57 00414780   .......&...C..P. ................
003E00  979892C4 20CA9101 10034780 97984850   06AA4170 CDC81975 47209798 BE571009   ..............& .....Q..........
003E20  D20720C0 00409130 00454770 9D649102   004447E0 97E29620 10029120 100C4710   K.... ........... .....S..........
003E40  98689101 1CC24710 991894DF 1C0295B0   30044740 97D695D3 300447D0 9D644150   ................ ... .O.L........&
003E60  CD60458C 98745820 05409550 06784770   98429551 30044780 98421211 478C9D64   .-........ .&.... ................
003E80  18884380 40074A80 051CBF83 80009140   80864780 9D649108 100C4780 9D649108   .... .......... ................
003EA0  20D44780 9D645880 20CC4188 CCC04B80   06AA4888 00064B81 00004980 CB62474C   .M..............  ................
003EC0  9D649710 300547F0 9D649560 06784780   99289540 06784770 9D649501 20D44770   .......0...-.... ... .........M..
003EE0  9D649602 1C03D207 004C20C0 47F0920E   41501010 BF580040 4180990A 9140CE00   ......K.. ...0.. .&..... ..... ..
003F00  47809894 18001785 17581785 4570C04C   D20CF000 CDF894BF CE0007F5 50500048   ..............  K.C..8.....5&&..
003F20  41509D58 48203000 9C0C2000 47409882   9D002000 472098A8 07159106 00454780   .&.......... .. ................
003F40  98C69608 C63958F0 064C47F0 F2649139   00450775 91020044 07759108 00440778   .F.....0. .02... ................
003F60  95D13004 474098EE 95D330C4 472098EE   954C0044 07889550 00444770 98A09501   .J... ...L...... . .....&........
003F80  05854770 99069D00 20C047F0 98A047F0   95645820 054047F0 985E0000 00000000   ...........0...C ..... .0........
003FA0  95B23004 4780918A 45509DFE 47F0918A   582C0540 95613004 47809D64 43803003   .........&...0.. ... ./..........
003FC0  41880001 42803003 588C1008 18004570   C04C45E0 9D0ED203 20CCF002 417099FC   ..............  ......K...0.....
003FE0  910820C5 C7779563 30044780 9AE89110   20D40777 910820D5 47109A42 910120D4   ...E.........Y.. .M.....N.......M
```


Appendix B. Storage Print (Part 10)

BLOCK 008

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004000  471099DC 914020D4 077791C8 20D44710  998C4170 9A049124 20D40777 910220D5  ..... .M.....M..  .........M.....N
004020  0777918C 20D44770 9D649102 20D44710  9A6C9160 20D54770 9AC29101 20C50777  .....M.......M..  ...-.N...B...E..
004040  47F09D64 95C13003 47DC99EC 45709ACC  95FF3003 47809D64 910F3C03 478099EC  .0..............  ..............
004060  47F09A0C 91802CD4 471C9D64 950A3C03  472C9D64 4150CD68 45809874 582C0540  .0.....M........  .....&.........
004080  47F09A0C 95013C03 47F09A08 950A3003  472C9D64 947F3C06 12114780 95644930  .0.......0......  ..............
0040A0  04E0474C 95649501 3C034770 95649563  3C04474C 9A3A45E0 BF709140 80064780  ...  ..........  ...  .......  ....
0040C0  956492E2 20CB47F0 9D649102 20D54710  99E44570 9AD0D501 CB46F002 477099E4  ...S...O.....N..  .U....N...O....U
0040E0  968020CA 91041C03 471C9A04 96081003  47F0985E 588020C0 4B8006AA BE87CDA1  ..............  .C............
004100  45709ADC 9101CB3E 47809AA8 9513CB49  47B09ABE 95603004 47709A9C 9509CB49  ..............  .....-.........
004120  47B09ABE 4880CB48 4188CCC1 4080CB48  415CCD80 50500048 41509044 48203000  ..........  ...  .&..&&...&.....
004140  458098AC C7F59620 1003D600 100320D5  47F0985E 9220CD74 4150CD70 45809874  .....5....O....N  .C.......&......
004160  5820054C 9240CD74 D20320CC CB3F07F7  913420D4 47709B08 911020D6 47109B10  ...  .  ..K.......7  ...M.......O....
004180  910820D4 47809B18 914C20D6 47109B18  95013003 47709B18 45E0BF70 96408006  ...M.....  .O....  ..........  ..
0041A0  918020D5 47109D64 911C20D4 47709A04  916020D4 477099FC 918020D4 47109D64  ...N.......M....  .-.M.......M....
0041C0  910820D5 47109A58 910420D4 47109A04  914C20D5 47109B7C 91082CD4 47109B9A  ...N.......M....  .  .N.......M....
0041E0  912020D5 47109B84 910520D5 47709D64  911C20D6 47109B8C 910120C5 47109A04  ...N.......N....  ...O.......E....
004200  47F09D64 96401C03 47F0985E 96201003  47F0985E 43703003 06704270 300347F0  .O...  ...O......  .C.............0
004220  9A0C9140 20D64780 9A049101 20D54710  9D64D202 9D1920E3 D2019D1E 20E65850  ...  .O.......N..  ..K....TK....W.&
004240  9D185B5C 9D1C5880 20CC4B80 06AAD201  9D228006 90129D28 411020E8 41200003  ..$&..........K.  ..........Y....
004260  18055500 9D2047B0 9C2E9500 10004780  9C229110 80044710 9C229502 40044770  ..............  ..........  ...
004280  9C14ACFA 9C0D58F8 CCC041FF 50C0D700  F0CC1000 ADC0CBE8 47F09C22 4570C04C  .......8....&.P.  0......Y.O.....
0042A0  45E09D0E D700F000 10CC4110 10014150  5C014620 9BD81878 91807004 47109CDE  ....P.O.......&  &....Q.........
0042C0  98129D28 D7079D28 9D28D701 20C620C6  D5039D18 9D204780 9C8858F0 9D205BFC  ....P.....P..F.F  N..........O..$0
0042E0  9D18474C 9C6240F0 20CC9120 7C044710  9C88417C 70085070 9D54D202 2CC19D55  ...  ..  O.F.....  ......&....K..A..
004300  964020C5 960C20C4 94FD20C4 47F0985E  910120EB 47109CD6 91407004 47809C7C  .  .E...D...D.O..  .......O.  .....
004320  41707008 95087C00 47709CA8 58707000  41F09D48 91107000 47109CBC 9212F000  ..............  .C............O.
004340  41F0F008 5C70F000 9208F000 D2049D2A  20DC4180 9D305080 004847F0 9AB09610  .00.&.O...O.K...  .......&....O....
004360  20D447F0 9B1058F0 9D185BF0 9D2050F0  9D185B50 9D204180 80089508 80004770  .M.O...O..$O..&C  ..$&..........
004380  9CFE5880 80000201 9D228006 122247D0  9C2E47F0 9BD812FF 47809D58 07FE0000  ......K.........  ...O.Q........
0043A0  00000000 C00C0000 C00C0000 0CC00000  00CC0000 00000000 070043B0 40000006  ..............  ..........  ...
0043C0  310043B2 4CCCCCC5 08CC43C0 CCC00001  00CC0000 70000005 00000000 00C00000  ....  ..........  ..............
0043E0  5820054C 922020CB 455C9DFE 403020C8  41110000 501020D0 185A4B50 04FA4250  ...  .....&..  ..H  ....&.......&...&
004400  20C01211 47809D8A 95024004 47809DB2  95044004 47709DA6 9120CE00 47109DA6  ..........  .....  ..  ..........
004420  58E0CDF8 C201E3CB 20D447F0 9DB24930  04E047B0 9DBA960C 20C49620 100247F0  ...8K.T..M.C....  .........D.....0
004440  985E9690 3CC64150 20109101 201A4710  9DDE95E9 20074780 9CEA9285 CB819680  .......&........  ...Z..........
004460  058147F0 9DEA4155 002C9101 500A4770  9DDED22B 5C0020C0 9601500A 95AE20CB  ...O........&...  ..K.&.....&.....
004480  078647F0 93B04170 CD6C5070 C0489610  70044820 00BA9C00 200094EF 70049D00  ...O.....-&.....  ..............
0044A0  20004720 9E165820 C54007F5 45F0E0E2  18354180 00041188 1E988738 E01C187C  .........  .5.O.S  ..............
0044C0  54703000 4780E00E 1F9845F0 E13C47B0  C71C4180 00034370 10011478 43802000  ..........O....  ..............
0044E0  14874770 E0701880 914C1001 47E0E04C  12444780 07101684 89700019 16785670  ........  ......  ..............
004500  20005070 20009601 200C9500 10004111  00044770 E01E1744 47F0E0A8 91801001  ..&.............  .........O......
004520  47E0E096 18354180 0C041188 1E988738  E09C1870 54703000 4780E082 192347D0  ..............  ..............
004540  072A414C CC041880 548C2CC0 4780E0A8  414C0008 5880A004 5040802C 50108030  ...  ..........  .  .......&  ..&...
004560  12440786 91801001 07E61733 18764560  B6481867 487004CE 88700C03 48801002  .........W......-  ..............
004580  40857000 96102000 94FEA0C0 07F65880  AC048F1F 80304780 E1101821 4580BF94  ..........6..  ..............
0045A0  17774370 10001E77 1E771E71 41270003  4580BF94 95007000 47700710 41000001  ..............  ..............
0045C0  487004CE E87CC004 89CC7000 1744D501  04CE04CE 4770E132 18408940 0C0589C0  ..............N.  .........  .  ....
0045E0  CB945850 CBA007FF BF2C1002 BF22E112  18795880 CB981E22 4730E156 18785880  ...&............  ..............
004600  CB9C1E22 47C0E162 5870CB9C 18858820  001C1E27 192807FF 45F0E0E2 16041829  ..............  .........C.S....
004620  121147DC E19C45F0 E13C47B0 07104170  00051788 91021001 4710E194 1771138C  .......C........  .......C.S....
004640  068018A4 12114740 E1B24780 E1AA9140  10014710 E1B254A0 20004770 E204BFA7  .......  .......  ..........S...
004660  200114A8 BEA72001 16AC17A0 4770E204  911C2000 42702000 4780E204 18A24130  ..............S.  ..........S.....
004680  000A5825 300045F0 E14C1777 C670192A  4770E1FA 18838980 00034A80 04FA9601  .......C.  .....  ..............
0046A0  80004075 30001A37 1A3747B0 E1D6182A  12114720 E2164122 00041925 4740E19C  ..  ..........O..  ....S.........  ..
0046C0  07F69500 1C004111 00C44770 E17A07F6  17110610 45F0E110 47F0E170 91400087  .6.............é  .....C...O...  ..
0046E0  4710E0CA 918C0087 07865850 05905830  00505530 CBAC07D6 D2030050 50019500  ..........&.....  .&.....OK..&&...
0047C0  CDD94780 E08248A0 04FA4AA0 CDD89500  A0014770 E082487C CDD84550 B78A9834  .R..........Q...  .........Q.&....
004720  70001233 47D0E082 91C8A0C4 4710E05E  9601A0C0 9608A004 07F694F7 A0041244  ..............  .........6.7....
004740  4740E078 D501CDD8 C5984770 E0889620  058107F6 96803002 D7077000 70004580  .  ..N..Q........  ...6....P.......
004760  E09407F6 4580E094 98347000 47F0B746  585C0590 D2C0CDD9 5000BF4F 50019500  ...é.........O..  .&..K..R&...&...
004780  5005478C E0C2BF3F 5C061B34 BE3F5001  D2C05000 50054155 000547F0 E0A2D204  &....B..&......&.  K.&.&......O..K.
0047A0  50005005 C7F81BAA 43AC05E5 5AA005D8  58ACA004 9102A009 47E0E0E8 94FDA009  &.&..8.....V...C  ..........Y....
0047C0  47F0E008 48A004FA 9601A008 9580ACC0  477CE008 9283AC00 47F0E008 05005658  .O..............  .........O......
0047E0  100404FF CC0C56C0 1CC404FF C1C05520  1C0404FF 020056C0 100404FF FF00BDC0  ..............  ..............
```

```
BLOCK C09

004800  10040410 C6CCCCCC FFCCFFFF 07CCCCC0   FFCCFFFF 08CCCCCC FFC0FFFF 09CCCCCC   ................ ................
004820  FFC0FFFF CACCCCC0 FFCCFFFF CBCCCCC0   FFCCFFFF 0CCCCCCC FFC0FFFF 0DCCCCCC   ................ ................
004840  FFC0FFFF CECCCCC0 FFC0FFFF FFCCCCCC   FFCCFFFF 00FFCCCC 0CCCFFC0 CCCCC0FF   ................ ................
004860  00000000 FFCCCCCC 00FFCCCC CCC0FFC0   CCCC1CC0 20002000 80008000 80008000   ................ ................
004880  00000000 --SAME--                                                          ....
0048A0  C0CC0000 CCCCCCC0 5B5BC1C2 C5D9D9C1   3BEC3892 075C2868 00000C00 0CCC0000   ........$$ABERRA .....*..........
0048C0  00000000 --SAME--                                                          ....
004920  00000000 CCCCCCCC 00CCCCC0 00000000   0CCC0000 00000000 00000000 1000BE58   ................ ................
004940  02000000 308804C0 CCCCC000 C000BDC0   40CC0000 00000000 00000000 00C00000   ................  ................
004960  00000000 CCCCCCCC 100CBE58 02C00000   3C8804C0 00000000 0000BDC0 40000000   ................ ............ ...
004980  00000000 --SAME--                                                          ....
0049A0  0000000C CCCCCCC0 CCCCCCC0 0003FFFF   00CC0066 00040000 000BD000 0000D000   ................ ................
0049C0  0000D000 C0040000 0006B000 0000D000   00CCDCC0 0006B000 0C07BC00 0000D000   ................ ................
0049E0  0000D000 CC07B000 000BB0C0 CCC0D000   00CCD0C0 00088000 000A4000 0000D000   ................ .......... .....
004A00  0000D0CC CC0A4CC0 0C0BD0C0 02500004   0000148F 000014C8 00FA0000 00CC0000   ...... ......&.. ........H.........
004A20  0000A158 C000C000 070D0000 C0005EFE   A0005E2A 00002E7C 000004A0 00000540   ................ ................
004A40  00004880 800C5EEA CC0C5E18 CCC40078   0C041888 00040000 00002E6C 0000BC2A   ................ ................
004A60  C0000015 CCCC3174 CC0C2E6C C0000010   00CC0000 00000000 00000000 0000000C   ................ ................
004A80  C0000000 C00Q0000 0CCCC000 00000000   00CC000C 00000000 040C0C00 000078C4   ................ ................D
004AA0  00004A90 CC002E7C C00C10C0 CCC02CC0   0CCC3000 000081E2 00000003 06041888   ................ .......S........
004AC0  00002BEC CC040C38 C00C6987 00006304   00CC0800 00000816 000062C0 00041218   ................ ................
004AE0  00000010 C0000000 00CC0000 C0000000   00CC0000 0000BDC0 00000C00 00000000   ................ ................
004B00  00000000 C0000C00 00CCC000 00040208   000400F6 00002F58 000030B8 0004008C   ................ ...6............
004B20  100404F4 CCC00816 00040208 80000CE8   00007308 00002E7C 00001000 00002000   ...4...........Y ................
004B40  00003000 90000BF0 00000002 C0000000   00CC0000 00000000 00000000 00000000   ........0........ ................
004B60  C0000000 --SAME--                                                          ....
004EA0  00003088 FF00BDC0 CCCCC01F 00003088   030047FC 00002E7C 000030C0 00000000   ................ ................
004EC0  00000000 C00030C0 00000000 CCC00000   0CCC30F8 00000000 00000250 00003108   ...8........&....
004EE0  040047FC CC002E7C CCCC3088 CCC0CC00   0CCC0000 00003088 00000000 00000000   ................ ................
004F00  C0003088 CCCCCCC0 CCCCCCC0 00003088   00000000 00000000 00003088 00CC0000   ................ ................
004F20  C0000000 C0003088 00CC0000 00000000   0CCC3088 0C000000 00C00C00 00003088   ................ ................
004F40  00000000 CCCCC000 CCCC0BD7 CCC01441   0CCC16B1 00001F43 00001F57 00000816   ...........P.... ................
004F60  CCC00816 CCCCCCC0 C0CCC0C0 C0000000   00CC0000 00000000 00000000 0CCC00CC   ................ ................
C04F80  C0000000 CC000000 040C0000 C000AA9A   00002E6C 00002CD4 00001C00 0000B060   ................ ........M........-
004FA0  00003000 C0CC0630 CCCCA860 CC040A7C   0CCCAF08 00000006 00000000 00040F69   ...........-.... ................
004FC0  40000000 CCCCC816 900CA9B2 CC002B7D   00CC0000 00000000 00000000 00000000    ................ ................
004FE0  C0000000 C0000000 00CC0000 CCC00000   0CCCCCC0 00C000C0 00000C00 00000000   ................ ................
```

Appendix B. Storage Print (Part 12)

```
BLCCK 010

005000  CCCCCCCC CCCCCCCC CCCCCCCC CCCCCCCC   CCCCCCCC 00000000 060C0C00 00C06AEA   ................  ................
005020  C0000003 CCCCC4A0 010C6990 CC0048A8   0CCC6C5C 80002630 0C00BCC0 01C06990   ................  ...&............
005040  00006C78 CCCC6990 CCCC4944 CCCCCCC1   CCCCC7F0 00002F50 000062C8 00006F70   ................  ...C...&...H....
005060  040C0000 CCC0225A 8CCC15DE CCC02E7C   00001000 00002000 00003C00 80002630   ................  ................
005080  CCCCCCCC C1CC6990 CCCC2BEC CCCC6990   0CCC6987 00C0006F 8C0015DE 00C00816   ................  ................
0050A0  000062C8 CCCC6F70 D2C7BDD6 6CCA47F0   08164590 C0C858E0 CDF8CC00 00000000   ...H....K..D-..C  .....H...8......
0050C0  00000000 --SAME--                                                           ....
005140  000C0000 CCCC0000 000C0000 C0000000   000C0000 00000000 00000000 00C00000   ................  ................
005160  00000000 --SAME--                                                           ....
0051A0  00000000 C011CC00 1D2CF140 40404040   40404040 40404040 40404040 40404040   ..........1
0051C0  40404040 --SAME--
0051E0  401D20F2 40404040 4C4C4040 40404040   4040C4040 40404040 40404040 40404040    ..2
005200  4040404C 4C4C4C40 4C4C4040 40404040   40404040 40404040 40401C20 F3404040                                    ..3
005220  40404040 --SAME--
005240  40404040 40404040 4C4C4040 40404040   4040C401D 20F44040 40404040 40404040                          ..4
005260  40404040 --SAME--
005280  40404040 40404040 4C4C4040 1D20F540   40404040 40404040 40404040 40404040                ..5
0052A0  40404040 --SAME--
0052C0  40404040 401D20F6 4C4C4040 40404040   40404040 40404040 40404040 40404040          ..6
0052E0  40404040 4C4C4040 4C4C4040 40404040   40404040 40404040 40404040 40401D20                                  ..
005300  F7404040 4C4C4040 4C4C4040 40404040   4C4C4040 40404040 40404040 40404040  7
005320  40404040 4C404040 4C4C4040 40404040   40404040 4040401D 20F84040 40404040                              ..8
005340  40404040 --SAME--
005360  40404040 40404040 4C4C4040 40404040   1D2C4040 40404040 40404040 40404040                      ..
005380  40404040 --SAME--
0053A0  40404040 40404040 401D0013 00000000   000C0000 00000000 00000000 00000000                ....... ................
0053C0  00000000 --SAME--                                                           ....
005400  00000000 CCCCC000 0CCCCCCC CCC00000   00000000 00000000 0000001D 20CC0700   ................  ................
005420  00000000 CCCCC000 00000500 C0000004   00005420 00000000 00005C58 0CCCC000   ................  ..........&.....
005440  00000000 C0000000 00CCCCCC CC000010   000CC0C0 00000000 00000000 00000000   ................  ................
005460  00000000 C1CCCCC0 CCCCCCC0 CCCCCCC0   00CC0000 00000700 00000C00 00000000   ................  ................
005480  00000000 --SAME--                                                           ....
0054A0  01040106 00000000 000CC000 07000700   000C0000 00C00C00 00000000 0000A008   ................  ................
0054C0  00000000 C4000001 04CCCCC2 04C0C003   040CC004 04000005 04000006 04CC0007   ................  ................
0054E0  04C00008 FF0CC000 CC0C0000 C0000000   00000000 00000000 00000000 0CCC0000   ................  ................
005500  00000000 C0000000 000C0000 FFFFFFFF   FFFFFFFF FFFFFFFF 09005530 00CC0042   ................  ................
005520  00008000 C8400004 C0CC5518 C0005520   C1F2F3F2 C940E2E8 E2F0F0F1 40D5D6E3   ..... .........  A232I SYS001 NOT
005540  40C1E2E2 C9C7D5C5 C44C4040 40404040   40404040 40404040 40404040 40404040    ASSIGNED
005560  40404040 40404040 40404040 40404040   404C0000 00000000 00000000 00C00000                      ................
005580  09005598 C0000042 C00C80C0 08400004   0CCC5580 00005588 C1F2F3F6 C940C1E2   ..............  ........A236I AS
0055A0  E2C5D4C2 D3C5D940 C3C1D5D5 D6E340C3   D6D5E3C9 D5E4C540 40404040 40404040   SEMBLER CANNOT C  ONTINUE
0055C0  40404040 40404040 40404040 40404040   404C4040 40404040 4C4CCC00 00000000                              ......
0055E0  00000000 C0000000 09005600 2CC00012   CC0C80C0 08000004 000055E8 000055F0   ................  ..........Y...0
005600  F1C3F0F0 C14040C1 E3E3D54B 40F040F0   C34BD3C5 40C9E240 4040F06C 40C6E4D3   1CCCA  ATTN. C C  C.LE IS   0. FUL
005620  D3000000 C0000000 00CC0000 00000000   00000000 00000000 00000000 0CCC0000   L...............  ................
005640  00000000 C0000000 C00CCCC0 CCCCC000   09005668 2000002F 00008000 08400004   ................  ..............  ..
005660  C000565C CCCC5658 F0D7F8F1 C940D1D6   C240E3C1 40404040 404040C3 C1D5C3C5   ...&....0P81I JC  B TA        CANCE
005680  D3C5C440 C4E4C540 E3D640C3 D7E440C6   C1C9D3E4 D9C54040 40404040 40404040   LED DUE TO CPU F  AILURE
0056A0  40404040 40404040 404C0000 CCC00000   00CCCCC0 00000000 090056D0 20000012                      .....  ................
0056C0  00008000 C84CCCC4 CC0C56B8 CC0056C0   F1C3F0F0 C14040C1 E3E3D54B 40F040F0   ..... ..........  1CCCA  ATTN. C C
0056E0  C34BE2E2 C9C7D5C5 C44C4040 40404040   40404040 40404040 40404040 40404040   C.SSIGNED
005700  40404040 4C404040 4C4C4040 40404040   404C0000 00000000 00000C00 00000000                      ................
005720  0D001000 C0000022 C00CD9D3 CC010001   00870000 00001A72 00000000 00000101   ..........RL....  ................
005740  00000100 C101CCC0 E01330C0 CCC002D8   0CCC5788 00C0000C 00180024 0030003C   ..............Q  ................
005760  00480054 C074C094 C0ACC0C4 C0DC00FC   011C0160 01A4C000 00000000 00CC0000   ...........D....  ...-............
005780  0C000000 CCCCC000 C0022B00 C0000010   00CC0000 00000000 00000C00 0CCC0000   ................  ................
0057A0  0008BE00 C00CC000 00CCC0C0 CCC00CC0   0CCCCCC0 00C00C00 00000C00 00000000   ................  ................
0057C0  C0000000 CCCCCCC0 CCCCCCCC CCC0CCC0   0C0C1DC0 00000000 00000000 00CCC000   ................  ................
0057E0  CCCCC00C CCCCC000 CCCCC000 00000000   00CC0000 00C00000 00C0CC00 0CCCCCCC   ................  ................
```

```
BLOCK 011

005800  00000000 CCCCCCCC CCCCCCCC CCC00000   000C0000 00000000 00000000 00CC0000   ................  ................
005820  --SAME--
0058A0  00000000 C0000010 000CC1C2 C0000000   000C0000 00000000 00000C00 00CC0000   ..........AB....  ................
0058C0  00000000 --SAME--                                                          ....
0058E0  00000000 CCCCCCCC CCCC0010 CC00C1C2   00000000 00000000 00000000 00CC0000   ..............AB  ................
005900  00000000 --SAME--                                                          ....
005920  00000000 C0000000 000C0000 00058F00   000C0000 0000F1F1 F1F1F1F1 002E0DA6   ................  ......111111....
005940  00000000 C4A5CC00 CCCCCCCC C0C00000   00000000 00000000 00000000 00CC0000   ................  ................
005960  C0000000 --SAME--                                                          ....
005A60  5B5BC2D6 C3D9E340 28000000 000091F0   00214770 071092F0 BDB99270 0FAF5890   $$BOCRT ........C  ........0........
005A80  05549270 933392B2 919792CC 91A59680   05745860 CDF84190 000447F0 BDB80000   ................  ....-.8.....C....
005AA0  00000000 --SAME--                                                          ....
005E00  00000000 C0000000 000C0000 C0000000   000C0000 00000000 5B5BC2C5 D6D1E2F1   ................  ........$$BEOJS1
005E20  47F0F00E 28005810 00140A21 1B22BF23   10841BAA 1B8B8FA3 206EBFB3 205A50B0   .00.............  ..............&.
005E40  F17C1AAB 18B15820 B02C5020 F19858C0   00805820 F17C5822 0008D277 F0FA2000   1.........&.1...  ....1.....K.C...
005E60  5840C0DC 4A40B06E D20FF188 40005830   F19C5840 F1940640 5040B020 94FEB086   . ... ..K.1. ...  1.. 1.. & ......
005E80  88300008 1A338840 00CB1A44 5820CCD0   5822C000 41220000 1A421A32 18554350   ....... ........  ..............&
005EA0  B06F4A5C F0F80A3B 918CA004 4780F0E6   9200A001 17110A40 94BFB038 9680A004   ...&08........0k  ....... ........
005EC0  5810F190 41010078 4110F174 CA045010   F184D200 F1800060 9440F180 9607F180   ..1.....1...&.  1.K.1..-. 1...1.
005EE0  D207F1C2 F18C5820 F19CD277 2C00F0FA   583CF17C BE273009 94DFA00C 0A085820   K.1.1...1.K...0.  ..1.............
005F00  F1885830 F1984133 CC010A36 47F0F098   0005C1E2 E2C5D4C2 D3E8070D 00000004   1...1.....00.  ..ASSEMBLY......
005F20  18880004 0C980006 78ED4004 0F5A4004   1D9A0004 02E08004 1F440006 78ED0004   ..... ... .  ..............
005F40  0A7C0005 E1C5C000 00FFC000 CC010004   0F6940C0 00008004 082C0004 11CC0004   .....E.........  .. ............
005F60  098EC000 83E2F797 33B8C000 00000000   00000000 00000000 00000000 00000000   .....S7.........  ................
005F80  00000000 C0000000 C00C0000 5BD1D6C2   C3E3D3C1 00002E6C 070D0000 00041888   ............$JOB  CTLA............
005FA0  0000D000 C000D000 C004C000 C006B000   0006AFFF F17C585B 00801255 4780F1F0   ..............  ....1..$......10
005FC0  D500B080 F38F4780 F1E05830 502C1233   4780F1F0 D500502C F38F4780 F1E05850   N...3...1...&...  ..10N.&.3...1..&
005FE0  304C1255 4780F1F0 D500304C F38F4780   F1E01835 47F0F1C6 4110F434 D200F4AF   ......10N...3...  1....01F..4.K.4.
```

BLOCK 012

```
006000  A0019228 AC010A02 581C0014 0A2148B1  00849620 A00C9180 A00147E0 F240947F  ................  ............2 ..
006020  A00195CC B06F4780 F16A9526 AC014770  F21E964C A00F4530 F286D21E F111F3F5  ........1.......  2.. ....2.K.1.35
006040  9520A0C1 4740F240 9522ACC1 4720F240  92F1F006 181F0A02 9520A001 4780F276  ..... 2 ......2  .10.........2.
006060  9521A001 4780F26E 9522A001 4780F266  9518A001 4770F27E 4110F42C 0A021B00  ......2.......2.  ......2...4.....
006080  4110F414 CA0241C0 CC0147F0 F2681871  411CF424 0A0292F2 F006181F 0A029240  ..4.........02...  ..4....20......
0060A0  F111D276 F112F111 44CC3CCC 484B004C  1855481B 007C4A1B 006E4351 00031A45  1.K.1.1.........  ...............
0060C0  1A4595FF 4C064780 30064150 00034050  F3E61B55 43540006 89500C03 486B004C  .... ......&.. &  3h.......&....h.
0060E0  41456000 C300F3BC 40049540 F3BC4770  F35C4150 F1114050 F39A4150 50054050  ..-.L.3. .. 3...  3&.&1. &3..&&. &
006100  F3924150 F39C47F0 F364581C C0140A21  48510060 41505048 D5065000 5C0A4720  3..&3..03.......  ...-.&&.N.&.&...
006120  3C06405C F3AAD207 F1085002 D204F3F0  50024350 F3F40650 4250F3F4 4150F3FC  .. &3.K.1.&.K.3C  &..&34.&.&34.&30
006140  4050F3B2 4050F3CA 415CF3B0 4050F3BA  4150F3C8 4050F3D2 4150F108 4050F3C2  &3. &3..&3. &3.  .&3H &3K.&1. &3B
006160  4150F3A8 47F0F364 956CF3BC 4780F2F2  4150F110 4050F3A2 4150F3A0 4050F3EA  .&3..03..-3...22  .&1. &3..&3. &3.
006180  45E0F370 47F03C06 411CF3E0 0A009180  10024710 E0C00A07 9550F3BF 00CC0000  ..3..0....3.....  .........&3.....
0061A0  04000000 20000002 89CC042B 60000001  09CC0111 00C00078 01000110 00000079  ............-...  ................
0061C0  070003A8 6C000C06 31CC03B0 6CC00C05  08CC03B8 00000010 1D000108 60000081  ....-.......-...  ............-...
0061E0  31C003C8 6C000C05 080C03D0 00000000  1E0C03D8 30000081 00000000 0CC00000  ...H-...........  ...Q............
006200  00000000 CCCC0000 00CC0000 00F0E2F0  F8C940D3 D6C74B40 E3D9C1D5 E24B40C1  ..............OSC  8I LCG. TRANS. A
006220  D9C5C140 C3C1D5C3 C5D3C5C4 5B5BC2C9  D3E2E5C3 5B5BC2C5 D6D1E2F1 5B5BC2D7  REA CANCELED$$BI  LSVC$$BEDJS1$$BP
006240  C3C8D240 5B5BC2C4 E4D4D740 5B5BC2D8  C3D5C3D3 00C00CC0 00C00C00 0CCC0C00  CHK $$BDUMP $$BC  CNCL............
006260  00003400 C15EC000 ACCC00C0 6D9C0004  0CCC6060 C2C76060 C3D6D4D9 C5C74040  ..............  ..--BG--COMREG
006280  C2C740C1 C4C4D940 C9E240F0 F0F0F4C1  F0D3C2D3 E3E8D740 40C8C5E7 40D3C5D5  BG ADDR IS CC04A  CLBLTYP  HEX LEN
0062A0  C7E3C84C C9E240F0 F0FCF060 D74BC44B  604040C1 D9C5C100 00001FF2 F04BF3F7  GTH IS CCC0-P.D.  -  AREA....20.37
0062C0  4BF3F678 C0041940 86006990 20C003A6  92CC2C06 20C00005 0C000001 00000002  .36.... ........  ................
0062E0  040303A6 5B5BC1C2 C5D9D9D6 CCCCC001  CC0CCC02 040403A5 5B5BC1C2 C5C9D9D7  ....$$ABERRO....  ........$$ABERRP
006300  C0CC0001 CCCCCC02 04050400 5B5BC1C2  C5D9D9D8 00000001 00000002 0406040C  ............$$AB  ERRQ............
006320  5B5BC1C2 C5D9D9E6 000C0001 0C000002  04C70168 5B5BC1C2 C5D9D9E8 0CCC0001  $$ABERRW........  ....$$ABERRY....
006340  00000002 0408035E 5B5BC1C2 C5D9D9E9  000CC001 00000002 05010350 5B5BC1C2  ........$$ABERRZ  ...........&$$AB
006360  C5D9D9F1 CCCCC001 CCCC0002 0502020A  5B5BC1C2 C5D9D9F2 00000001 0CCC0002  ERR1............  $$ABERR2........
006380  050301E5 5B5BC1C2 C5D9D9F3 C0000001  CC0CC002 050401AB 5B5BC1C2 C5D9D9F4  ...V$$ABERR3....  ........$$ABERR4
0063A0  00000001 C0C00C02 05050239 5B5BC1C2  C5D9D9F5 00000001 00000002 0506008A  ............$$AB  ERR5............
0063C0  5B5BC1C2 C5D9E9F1 CC0CC001 CCC00002  05C700C6 5B5BC2C1 E3E3D5C1 0CCC0001  $$ABERZ1........  ...F$$BATTNA....
0063E0  00000002 C50803C1 5B5BC2C1 E3E3D5C2  0CCCC001 00000002 060101E1 5B5BC2C1  ........A$$BATTNB  ............$$BA
006400  E3E3D5C3 C0000001 CCCC0002 C60201D8  5B5BC2C1 E3E3D5C4 00000001 00000002  TTNC............Q  $$BATTND........
006420  06030231 5B5BC2C1 E3E3D5C5 C0000001  00CC0002 06040243 5B5BC2C1 E3E3D5C6  ....$$BATTNE....  ........$$BATTNF
006440  00000001 C0000002 060502CA 5B5BC2C1  E3E3D5C7 00C0C001 000C0002 0606015D  ............$$BA  TTNG............
006460  5B5BC2C1 E3E3D5C8 CCCCC0C1 CCC00C02  06C70111 5B5BC2C1 E3E3D5D5 00000001  $$BATTNH........  ....$$BATTNN....
006480  00000002 C60800CA 5B5BC2C1 E3E3D5D8  00CC0001 00000002 070101AB 5B5BC2C1  ........$$BATTNQ  ............$$BA
0064A0  E3E3D5D9 C0C00001 00CC0002 07020171  5B5BC2C1 E3E3D5E2 0CCCC001 00000002  TTNR............  $$BATTNS........
0064C0  070301AC 5B5BC2C1 E3E3D5E3 CCC00C01  CCCCC002 070402AC 5B5BC2C1 E3E3D5E4  ....$$BATTNT....  ........$$BATTNU
0064E0  00000001 CCCCCC02 07050246 5B5BC2C1  E3E3D5E5 00C00001 00000002 070602D0  ............$$BA  TTNV............
006500  5B5BC2C1 E3E3D5E6 00CC0001 00000002  07070498 5B5BC2C1 E3E3D5E7 0CC00001  $$BATTNW........  ....$$BATTNX....
006520  00000002 07080498 5B5BC2C1 E3E3D5E8  0CCCC001 00C00002 08010197 5B5BC2C1  ........$$BATTNY  ............$$BA
006540  E3E3D5E9 CCCCC001 CCCCC002 C8020183  5B5BC2C1 E3E3D5F2 0C000001 00CCC002  TTNZ............  $$BATTN2........
006560  080301DA 5B5BC2C1 E3E3D5F3 CCC00001  0CCCC002 0804028C 5B5BC2C1 E3E3D5F5  ....$$BATTN3....  ........$$BATTN5
006580  00000001 CC000002 08050498 5B5BC2C3  C3C8C8D9 00C00001 00000002 08060220  ............$$BC  CHHR............
0065A0  9200F10F 58300014 0A214823 C07C4A23  002E4812 00021A11 4A13004C 4823004A  ..1.............  ................
0065C0  BF222000 E82C0008 1A221A21 95FF100E  478CF302 4110F310 4500F2F0 0C040DC0  ..............  ..3...3...2C....
0065E0  0A029601 F2A8D202 F2ACF35D D2C0F2A1  F35C412C F2A04110 F3180A02 47F0F10E  ....2.K.2.3.K.2.  3*..2...3....01.
006600  5B5BC2D6 D7C5D540 5B5BC2D6 D7D5D3C2  0CCC840C 08C00007 00040E18 0C000000  $$BOPEN $$BOPNLB  ................
006620  00040EC0 3202C9D1 E2E8E2E2 D3400000  C0CCC0C0 00000800 002020F3 80040DEC  ......IJSYSSL ..  ...........3....
006640  80000000 CCCCCC00 CCCCCCCC CCC0FF00  0CC40E01 00C00000 1A010018 00000000  ................  ................
006660  010C0051 47CCC000 C7C40DFA 40000006  31040DFC 40000005 08040E20 2CCCC001  ............ ...  .... ...........
006680  06040E30 2C000051 000C0000 CCC00000  0CCC0000 0CC00C00 00000C00 0CC00000  ................  ................
0066A0  00000000 --SAME--                                                       ....
0066C0  0000000C CCCCCCC0 C9D7D2C1 C5F2F8F0  000C0000 00C00000 00000C00 0CC0000C  ........IPKAE28C  ................
0066E0  00000000 --SAME--                                                       ....
006720  90F2D688 58206038 456CD014 94CFD67A  419C2008 58F02094 41102C08 45EF000C  .2O...-..-....O.  .....O..........
006740  47F02088 98F2D688 47FCD01C 9610D67A  962CD67A 47F0207C 00040E78 0C040AA0  .O...2O..C....O.  ..O..C..........
006760  90F2D688 18264560 D01494F7 D67A1817  58FC202A 05EF47F0 202298F2 D68847FC  .2O....-...7C...  .O.....O...2C..O
006780  D0109608 C67A47F0 201AC004 0AA00000  0CCCC000 00000000 00000000 0CC00000  ....O..O........  ................
0067A0  C9D7D2C6 C1F2F8F0 C5BC47FC BE3EC0C0  CCCC0000 00000000 00000000 00C00C0C  IPKFA28C...C....  ................
0067C0  C0000C0C --SAME--                                                       ....
0067E0  00000000 CCC00000 C0CCC0C0 C0C00000  00CC0000 0000040F 69040F69 0CCC0000  ................  ................
```

0Ixx = IPL Messages

If the IPL device is a card reader the messages 0I11-32 can be retrieved only from bytes 0-3 of real storage when the system enters a wait state.

0I10A GIVE IPL COMMANDS

Cause: IPL awaiting commands (ADD, DEL, and SET).

System Action: The system waits for the IPL commands from the console-typewriter.

Operator Action: Enter IPL control commands.

0I11A PREVIOUS COMMAND INVALID

Cause: IPL command printed on previous line is invalid, or
The SET command is missing, or
7-track tape, MICR, or TP is not supported.

System Action: The system waits for an operator response.

Programmer Action: If necessary, reassemble the supervisor with 7-track tape support.

Operator Action: Type the corrected command if a keyboard is available; otherwise, re-IPL with correctly punched cards.

If the problem recurs, execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A,3) before the subject command is given and have

- the console log sheet
- the IPL control cards

available for problem determination.

0I12A DEL COMMAND IS FOR NON-EXISTENT DEVICE

Cause: Device referred to in DEL command printed on previous line was not provided for when system was generated.

System Action: The system waits for an operator response.

Programmer Action: Check the supervisor assembly listing to determine whether a DVCGEN card was submitted for the device. Also locate the address of the label CNLSVE in the supervisor assembly listing, rerun the job, and get a stand-alone dump at that address to check that the entry actually exists. See DOS/VS SADP, GC33-5380, Section 2,A,3.

If the problem recurs, have

- the dump output
- the supervisor listing
- log sheet
- IPL deck

available for problem determination.

Operator Action: Check the DEL card for correct punching or the DEL command for correct typing, and then type the corrected command if a keyboard is available; otherwise, re-IPL. If the command or statement is correct, execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and give the output to your programmer.

0113I **CANNOT ADD PUB. INSUFFICIENT TABLE SPACE**

Cause: No room in tables to add PUB for device specified in preceding ADD command.

System Action: The command is ignored and processing continues.

Programmer Action: Use the supervisor lising to check that sufficient PUB space was allocated during system generation. The number of PUB entries is indicated in the DC following the label PUBTAB.

Operator Action: Use the DEL command to release unnecessary PUB entries. Then add the necessary entry.

If the problem recurs, stop the system while the message is being printed, then execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and have

- the output
- the log sheet
- IPL deck

available for problem determination.

0114I **CANNOT ADD TEB or TEBV -- INSUFFICIENT TABLE SPACE**

Cause: No room in tables to add TEB (tape error block) or TEBV (tape error block by volume) for device specified in preceding ADD command.

System Action: If IPL is from the console, the system waits for operator response. Otherwise IPL is completed, but the system must be re-IPLed if the device is required.

Programmer Action: Reassemble the supervisor with more TEB table space. To do this, increase the number in the TEB option of the FOPT macro.

Operator Action: Give DEL commands for devices to be deleted before giving ADD commands.

If the problem recurs, execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and have

- the listing
- a supervisor listing
- the console log or OPL deck

available for problem determination.

0115I **PUB ALREADY EXISTS**

Cause: The preceding ADD command specifies a device already provided for in the PUB table.

System Action: If IPL is from the keyboard, the ADD command is ignored and processing continues. If IPL is from the card reader, the system enters a wait state.

Programmer Action: If no PUB exists and the message appears when the job is rerun, have

- the log sheet
- IPL card deck (if IPL is from a card reader)
- supervisor listing

available for problem determination.

Operator Action: If the IPL is from the keyboard, type the corrected command. Otherwise correct the card in error and re-IPL.

0116A NO PUB GIVEN FOR SYSRES

Cause: A SET command is encountered, indicating that there will be no more ADD or DEL commands, but no PUB exists for SYSRES.

System Action: The system waits for an operator response.

Programmer Action: Check that the ADD command or statement for SYSRES is correct.

Operator Action: Give an ADD command for SYSRES device, and then reissue the SET command. If using a card reader for IPL, include an ADD card for the SYSRES device and restart IPL.

If the problem persists, execute a stand-alone dump (dee DOS/VS SADP, GC33-5380, Section 2,A) and have

- the supervisor listing
- log sheet
- IPL deck

available for problem determination.

0117A NO PUB GIVEN FOR SYSLOG

Cause: A SET command is encountered, indicating that no more ADD or DEL commands will be issued. If you are using SYSLOG for IPL, no PUB exists for SYSLOG. If using SYSRDR for IPL, no PUB exists for SYSRDR.

System Action: The system waits for additional commands.

Programmer Action: Check that the ADD command or statement for SYSLOG is correct.

Operator Action: Give an ADD command for SYSLOG and then reissue the SET command, or
Give an ADD command for SYSRDR and restart the IPL procedure.

If the problem recurs, execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and have

- the output
- the supervisor listing
- log sheet
- IPL deck

available for problem determination.

0118A **SET COMMAND NOT GIVEN**

Cause: An END key response or the DPD command was given, but the SET command did not precede it.

System Action: The system waits for an operator response.

Operator Action: Enter the SET command, then re-enter DPD command if SYSLOG has a keyboard; otherwise re-IPL.

If the problem recurs, press STOP on the console and execute a stand-alone dump (See DOS/VS SADP, GC33-5380, Section 2,A) and have

- the output
- the log sheet

available for problem determination.

0119A **STANDARD LABELS DESTROYED**

Cause: A supervisor replacing another with fewer partitions has been loaded for the first time. The label cylinder has been reorganized in order to provide space for the additional partition labels. The remaining space is not sufficient for the standard labels.

System Action: Processing continues.

Programmer Action: Specify fewer labels, if standard labels are to be rewritten.

0120I **DOS/VS IPL COMPLETE**

Cause: IPL procedure is complete.

System Action: Control is returned to job control.

Operator Action: Start processing.

0123I **DASD ON NON-FILE-PROTECTED CHANNEL**

Cause: DASD device specified on a channel where file protection was not generated, or
No DASD device specified in DASD file protect option. or
If no device was added, the SYSRES pack is on an unprotected channel. SYSRES must be on a DASD file protected channel.

System Action: The system waits for an operator response.

Programmer Action: Reassemble the supervisor and specify in the DASDFP parameter of the FOPT macro all DASD device types and all channels that interface with DASD devices, or
Reassemble the supervisor without DASD file protection (specify DASDFP=NO).

Operator Action: If a previous ADD command was issued, delete the device specified in it and reissue the SET command.

If the problem recurs, execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2, A) and have

- the listing
- a supervisor listing
- the console log or IPL deck

available for problem determination.

0124A **CANNOT ADD, INSUFFICIENT SAB TABLE SPACE**

Cause: No room exists in the tables to add the seek address block (SAB) for this DASD device.

System Action: If the IPL is from the keyboard, the system waits for an operator response. If IPL is from the reader, the ADD card is ignored and IPL is completed, but you must re-IPL if this device is required.

Programmer Action: Reassemble the supervisor with more SAB table space. Accomplish this by specifying a greater number on the SKSEP option.

Operator Action: Enter a DEL command to release a DASD device that is not required, then re-enter the ADD command if a keyboard is available; otherwise, remove an ADD statement or delete a DASD device and re-IPL.

If the problem recurs, execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and have

- the output
- the supervisor listing
- log sheet

available for problem determination.

0126I **$$BUCB AND $$BFCB LOADED X 'cuu'**

Cause: The IPL load of the Forms Control buffer (FCB) and Universal Character Set buffer (UCSB) on the printer at address X 'xxx' has been completed successfully. If one buffer has failed to be loaded, dashes have been substituted for the applicable buffer load name and this message has been preceded by message 0127I.

System Action: Processing continues

Operator Action: None

0127I **(UCB, FCB) LOAD FAILURE X 'cuu'**

Cause: The buffer referenced in the message failed to be loaded properly due to a hardware failure, or the FCB load catalogued under $$BFCB did not contain a stop character. This error occurred during IPL on the printer with the address cuu.

System Action: No additional attempt is made to load this buffer, but $$BUFLDR continues processing the remaining buffers on this system.

Programmer Action: If this was an FCB failure, check that an error-free FCB load is catalogued under $$BFCB.

Operator Action: After IPL is complete, attempt to load the referenced buffer using SYSBUFLD (See DOS/VS System Control Statements, GC33-5376). If this attempt is also unsuccessful and the FCB load is correct, issue the ROD command, execute

1. Some 0Pxx-messages have after the usual message code (see *Introduction* of this manual) another one or two characters (reply code) which, together with the action code (A, I, D, W, or E), inform the operator either of what the system has done (with Action Code I) or of what he can or must do (with action code D).

   Six combinations as shown in Figure 4 are possible for action and reply codes y and z if the systems communications device has a keyboard. If the console keyboard is inoperable, limited operations may continue, under some circumstances, by displaying messages in low real storage and entering the proper reply there, too. (See DOS/VS SADP, Section 2,E,2.)

	Action Indicator	Operator Code	X = Possible Operator Response			
			CANCEL	IGNORE	RETRY	END key
Combination 1	A	-	X			
Combination 2	I	I		(X)		
Combination 3	I	C	(X)			
Combination 4	D	I	X	X		
Combination 5	D	IR	X	X	X	X
Combination 6	D	R	X		X	X

Figure 4. Operator Action for some PIOCS Messages

Combination 1: Press REQUEST key and enter CANCEL BG, F1, F2, F3, F4, or to continue, perform any manual recovery procedure implied by ther error condition and ready the device. No response is required in this case.

Combination 2: The error is ignored. The data is posted to the program and processing continues.

Combination 3: The job is canceled.

Combination 4: If the reply is IGNORE, the error is ignored and the data posted to the program. Processing continues.

Combination 5: If the reply is IGNORE, the effect is like in combination 4.
If it is RETRY or END key, the channel program is retried.
If an equipment check message (6P10D) occurs on SYSLOG and the partition indicator is AR, a response of CANCEL is not valid.

Combination 6: If the reply is RETRY or END key, the channel program is retried.

2. Most PICOS messages have some more machine information printed after the actual message text. You will find:

(Code message) SYSxxx = cuu
CCSW= CCB=' [SK= /BS=]

Example: BG OP15D R SEEK CHECK SYS011=132
CCSW=3110007A100E000005 CCB=0079C0 SK=000000000000
SNS=00080040

Explanations:

SYSxxx: Specific logical unit on which the I/O error occurred. Appears as SYSXXX if the CCB address is not available and as SYSCTL whenever the program needs a logical unit to perform an I/O command.

cuu : Appears in bytes 2 and 3 of real storage when the printer keyboard or operator display unit is inoperable.

CCSW : Channel status word. The first two characters represent the command code of the last CCW executed. This will appear as 00 if the CCW address is no longer accessible.

CCB : Address of user's CCB. Will appear as zeros if unavailable.

SK : Hexadecimal seek address of the track on which the error occurred if it was on a DASD device. The first four characters will appear as BBBB if no CCB is available.

RS : This parameter appears if the error occurred on an MFCM (2560). A three digit restart code refers you to the appropriate restart procedure in the Machine Handling Manual of the DOS/VS Model 125. To follow this procedure you will need the following parameters which are printed after the restart code:

S: n^1, n^2, n^3 (one, two, or all present) = stacker numbers
C: erroneous column number.

SNS : Sense bytes obtained from the device in error (will appear as zero if unavailable at the time of error.

0P08 INTERV REQ

Cause: Intervention required on unit check. Device not ready.

System Action: The system waits for an operator response.

Operator Action: See Figure 4 at the beginning of 0Pxx messages.

If the problem persists, this is probably a hardware error. Execute a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and have

- the output
- the log sheet

available for problem determination.

0P09 BUSOUT CHK

Cause: A unit check, caused by a parity error, occurred.

This is probably a hardware error.

System Action: See Figure 4 at the beginning of 0Pxx messages.

Operator Action: See Figure 3 at the beginning of 0Pxx messages.

If the problem persists, issue the ROD command. Execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- the EREP listing
- the console log m determination.

available for problem determination.

0P10 EQUIP CHK

Cause: Unit check (equipment check for a tape unit or the 3886 optical reader).
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of 0Pxx messages.)P), and have

If the problem recurs, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- the output
- the log sheet

available for problem determination.

0P11 DATA CHECK

Cause: Unit check (data check), or
Tape inoperative with mode setting.
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of 0Pxx messages. Then issue the LISTIO command and check that the mode set agrees with the mode used to create the tape. If correction is necessary, rerun the job.

If the problem recurs, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- the output
- the log sheet
- the listings and job streams of the programs that created and read the tape

available for job determination.

0P12 VERIFY CHK

Cause: A unit check was caused by a data check while executing a verify command.
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of this section.

If the problem persists, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- the output
- the log sheet

available for problem determination.

- the output
- log sheet

available for problem determination.

0P13 **ADDR MRKER**

Cause: A unit check was caused by a missing address marker. The storage control unit has received two index points without an intervening address marker.
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of 0Pxx messages. If possible, use another disk pack or disk drive. If another disk drive is used and the failure recurs, the pack must be re-initialized and the file rebuilt.

If the problem persists, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F) and have

- the output
- the log sheet

available for problem determination.

0P14 **OVERRUN**

Cause: A unit check caused by a channel overrun (channel chaining check bit on in CSW) occurred.
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of 0Pxx messages.

If the problem persists, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F0 and have

- the output
- log sheet

available for problem determination.

0P15 **SEEK CHECK**

Cause: Unit check (seek check). Access mechanism has failed to reposition properly, or
Home address compare fails after automatic head switching on a multitrack operation.
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of 0Pxx messages. If possible, use another drive if the job must be rerun.

If the problem persists, issue the ROD command, execute EREP (see DOS/VS SADP, GC53-5380, Section 2,F) and have

- the output
- log sheet

available for problem determination.

0P16 **DTA CHK CT**

Cause: Unit check (data check in count field).
This is probably a hardware error.

Operator Action: See Figure 4 at the beginning of 0Pxx messages.
If possible, use another device.

If the problem persists, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- the output
- the log sheet

available for problem determination.

0P17 **FILE PROT**

Cause: Unit check. A command that resulted in a command reject was issued to a tape that is file-protected and positioned at its load point. For a DASD file, this message indicates a set file mask notation. It can be caused by an illegal seek operation. On a system with DASD file protection, it can also indicate an attempt to write on SYSRES.

Programmer Action: The probable errors are:

- A channel operation, such as a write or seek, was attempted after the file mask was set.
- A second long seek attempted although the supervisor supports seek separation.
- An invalid CCW command or command sequence was detected.

Check these conditions by obtaining a system dump (supervisor and partitions) at the time of the failure and by inspecting the channel operations requested by the program. The CCW chain is pointed to by bytes 8-11 of the CCB addressed in the message.

Operator Action: Check that the proper tape has been mounted and that the file protect ring has been inserted. See Figure 4 at the beginning of 0Pxx messages.

If the problem recurs, obtain a system dump (see DOS/VS SADP, GC33-5380, Section 2,A) and have

- the output
- the ROD command output
- the EREP output (see DOS/VS SADP, GC33-5380, Section 2,F)
- the log sheet
- program listing

available for problem determination.

0P18 **COMM REJCT**

Cause: Unit check (command reject). Invalid CCW command or command sequence was detected, or
An attempt was made to write on a write-inhibited 2314 drive, or
An attempt was made to write Home Address with mask off on a 3330 or 3333, or
An invalid seek was attempted on a 3330 or a 3333.

Programmer Action: Check the command sequence in your source program. If it is correct, obtain a system dump (supervisor and partitions) and check the operation codes in the CCW string pointed to by bytes 8-11 of the CCB addressed in the message. Some probable errors are write commands issued to a file-protected tape that is not at load point, a write to a DASD device without a preceding search, or two successive reads without an intervening feed for a 2540.

Operator Action: See Figure 4 at the beginning of 0Pxx messages. Check, by issuing the LISTIO command, that all assignments have been correctly made.

If the problem recurs, have

- a system dump, see DOS/VS SADP, GC33-5380, Section 2,A.
- the job stream
- log sheet
- program listing

available for problem determination.

0P19 UNDETR ERR

Cause: Unit check (no valid sense byte). This is probably a hardware error.

Programmer Action: In addition to the hardware errors that can cause this message, a data check or UCS parity error in a UCS 1403 will cause this message if the PUB for this device does not specify UCS. Use a dump to determine the failing device type as follows:

1. Display and record the address of the communications region, bytes X''16' and X '17' of low real storage, before the dump is executed.

2. Add X '40' to the address obtained in step 1. This location contains the address of the PUB table.

3. Search the table until the PUB device address matches the device address in the error message. Each PUB entry is eight bytes long, and the first two bytes contain the channel and unit (X '0cuu') of a device (see Figure 5).

Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
Channel	Unit	Flags	Flags	Device Type	Flags	Flags	Flags
0c	uu	ff	ff	nn	ff	ff	ff

Figure 5. PUB Table Entry

4. When a match is found, obtain the device type from byte 4 of the entry and determine the device type using Figure 6.

Operator Action: Check that all assignments were made prior to the execution of the job. If correction is necessary, rerun the job. To obtain a meaningful storage dump, use DOS/VS SADP, GC33-5380, Section 2,A.

0P71I [JOB or SUB] xxxxxxxx CANCELED DUE TO SYSxxx NOT ASSIGNED

Note: If xxxxxxxx is JOB ACCT, it can be reinitiated only with IPL. The associated job can be rerun.

Cause: Program issued an I/O request for a logical unit (SYSxxx) which is not assigned to a physical device. If the CCB is unavailable, the logical unit will be printed as SYSxxx. General register 1 contains the address of the CCB in question. (SUB refers to a subtask.)

System Action: The job or subtask is canceled.

Programmer Action: If the indicated logical unit should not have been required, check the program listing for possible modification or overlay of the CCB, or for errors during assembly. Make the necessary corrections and resubmit the job.

If the problem recurs, have the following available for problem determination:

- Standalone dump
- Supervisor listing
- Program listing
- Job stream
- Log sheet
- Printer output

0P73I [JOB or SUB] xxxxxxxx CANCELED DUE TO I/O ERROR

Cause: An irrecoverable I/O error occurred during job processing. (SUB refers to subtask.)
This is probably a hardware error.

System Action: The job or subtask is canceled.

Operator Action: The log sheet will contain a device error recovery message that preceded this message. Perform the recovery or problem determination action indicated in that message.

0P74I [JOB or SUB] xxxxxxxx CANCELED DUE TO I/O OPERATOR OPTION

Cause: Operator typed CANCEL on the keyboard in response to an I/O error message. (SUB refers to a subtask.)

System Action: The job or subtask is canceled.

Operator Action: None

0P75I [JOB or SUB] xxxxxxxx CANCELED DUE TO I/O ERROR QUEUE OVERFLOW

Cause: Number of I/O errors pending simultaneously has exceeded supervisor capacity for a job or subtask.
This is probably a hardware error.

System Action: The job or subtask is canceled.

dump, use DOS/VS SADP, GC33-5380, Section 2,A.

0P81I **JOB Xxxxxxxx CANCELED DUE TO CPU FAILURE**

Cause: An irrecoverable machine check interrupt has occurred.

System Action: The job is canceled.

Operator Action: Rerun the job.

If the problem recurs, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- output
- the log sheet

available for problem determination.

0P82I **JOB xxxxxxxx CANCELED DUE TO CHANNEL FAILURE**

Cause: A channel has occurred as the result of a channel failure, or an I/O interrupt that caused a log-out has occurred. xxxxxxxx is the job or subtask name.
This is probably a hardware error.

System Action: The job is canceled.

Operator Action: Rerun the job.

If the problem recurs, issue the ROD command, execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F), and have

- output
- the log sheet

available for problem determination.

0P83A **[JOB or SUB] xxxxxxxx CANCELED DUE TO SUPERVISOR CATALOG FAILURE**

Cause: The job that was to catalog a supervisor has been canceled. Either the control cards are incorrect, or the core image library or core image directory is too small. SUB refers to subtask.

System Action: The system enters wait state.

Programmer Action: Correct the control cards in error, or reallocate the core image library or its directory.

If the problem recurs, execute a DSERV (see DOS/VS SADP, GC33-5380, Section 2,C) to obtain a system directory and have

- the console log
- the job stream

available for problem determination.

Operator Action: Display low address space. Perform a stand-alone dump (see DOS/VS SADP, GC33-5380, Section 2,A) and give the output to your programmer. After correction re-IPL

0T00I LAST TRACK ON RECORDER FILE

Cause: The first record on the last track of the recorder file has been reached.

System Action: Environmental recording ends when the file is full and processing continues.

Operator Action: Run the EREP program with the HIST or CLEAR options (see DOS/VS SADP, GC33-5380, Section 2,F) as soon as possible to ensure that lost information is kept to a minimum. Issue the ROD command just prior to EREP execution.

0T03I ERROR ON RECORDER FILE AT cchhr

Cause: An irrecoverable I/O error has occurred on the recorder file while accessing the indicated record (cchhr = cylinder, head, record).

This is probably a hardware error.

System Action: The I/O request for this record is ignored and processing continues.

Operator Action: If this error message persists, run the EREP program (see DOS/VS SADP, GC33-5380, Section 2,F) to retrieve the information from the file, It may be necessary to initialize and recreate the file.

0T04I CHANNEL QUE FULL NO RECORD

Cause: When an I/O request for SYSREC was issued, the channel queue was full.

System Action: The record is not written on the SYSREC file, and processing continues.

Programmer Action: If the error message persists, generate a new supervisor with more entries in the channel queue, i.e. specify a greater number in the CHANQ operand of the IOTAB macro.

0T05E RECORDER FILE FULL. RUN EREP

Cause: The recorder file is full.

System Action: Environmental recording is terminated until EREP is executed to purge the recorder file. Other system processing continues.

Operator Action: Execute EREP (see DOS/VS SADP, GC33-5380, Section 2,F) to create a history tape and edited output.

0T06I ECC MAIN STORAGE MCI DISABLED

Cause: The error frequency limit for ECC (error correction code) has been exceeded.

System Action: The ECC function is put in the quiet mode, then processing continues.

Operator Action: None

0T07I **ALL SOFT MCI DISABLED**

Cause: The error frequency limit was exceeded for both HIR (hardware instruction-retry) and ECC (error correction code).

System Action: HIR and ECC are placed in the quiet mode, then processing continues.

Operator Action: None

0T08I **C40 BUFFER PAGES DELETED = xxx**

Cause: A number (xxx) of Model 155 pages are unusable. The Model 155 is operating with the rest of the available 256 pages.

System Action: Processing continues. Minor performance degradation can occur because buffer pages have been deleted.

0T09I **SOFT MACHINE CHECK**

Cause: A machine check interrupt has occurred due to a corrected failure.

System Action: The error is recorded on SYSREC, and processing continues.

Operator Action: None

0T10I **CHANNEL ERROR RECOVERY ON CUU**

Cause: An I/O operation failure, due to a channel control check or interface control check, was successfully retried.

System Action: The error is recorded on SYSREC, and processing continues.

Operator Action: None

0T11W **HARD WAIT CODE = x**
RUN EREP RECORDING SUCCESSFUL
RUN SEREP RECORDING INCOMPLETE
RUN SEREP RECORDING UNSUCCESSFUL

Cause: A system failure, indicated by the hard wait code has resulted in an uninterruptable wait state. The system failure can be:

x=A Irrecoverable machine check has occurred.

B An RMS fetch error occurred.

C Channel failure on SYSLOG when MCAR/CCH message, other than 0T11I, is issued.

D ECSW not stored.

E The ERPIB queue is exhausted.

F Two channels are damaged, or a channel error occurred while RMSR was performing an I/O operation.

G System reset was presented by a channel in the ECSW.

H The reset codes in the ECSW are invalid.

I The channel address of a channel error is invalid.

J Irrecoverable channel check on paging channel.

The second part of the message indicates the error editing program that should be executed and whether error recording was successful, incomplete, or unsuccessful. This is probably a hardware error.

System Action: The system enters an irrecoverable wait state.

Operator Action: Execute the program indicated by the error message. SEREP should be executed immediately. If EREP is indicated, you must IPL and then supply a job stream to execute EREP. See DOS/VS SADP, GC33-5380, Section 2, F. In both cases, Call your IBM Customer Engineer.

Consult DOS/VS SADP, GC33-5380, for Model 125 procedures.

0T12E **IRRECOVERABLE CHANNEL ERROR ON CUU**

Cause: A channel control check or interface control check occurred during an I/O operation on the device at address cuu (Channel and unit). CCH retry was not successful or the operation could not be retried. This is probably a hardware error.

System Action: If the "accept irrecoverable I/O error" bit is not on in the user CCB, the job or subtask is canceled. All irrecoverable DASD errors cause job or subtask cancelation. The error is recorded on SYSREC, and system processing continues.

Operator Action: None

0T13A **CHANNEL ERROR ON CUU**

Cause: A channel control check or interface control check occurred during an I/O operation on the device at address cuu (channel and unit). Manual intervention is required before CCH can retry the operation.
This is probably a hardware error.

System Action: The error is recorded on SYSREC, then the system waits for an operator response.

Operator Action: The card reader or punch must be reloaded and readied. Refer to the applicable hardware operating guide.
After one of these operations has been performed, press the END key on the console keyboard to continue processing, or
Type CANCEL and press the END key on the keyboard to cancel the job or subtask. Normal system processing will continue.

0T14E **CLOCK DAMAGE, ALL MODES QUIET**

Cause: The time-of-day clock is damaged (hardware). Damage to the time-of-day clock requires that error recording due to corrected hardware failures be disabled.
This is probably a hardware error.

1. Where n is the third digit of the message number, it indicates the field being processed in a job control command/statement when the error was detected. It does not necessarily indicate the field in error. The command/statement being processed when the error is detected will always be the last command/statement printed immediately before the error message. For example, if the ASSGN statement

```
      1.     2.     3.     4.
//    ASSGN SYSRDR,IGN
```

is processed, message number 1A04D is issued. The number 4, corresponding to n, indicates that the fourth field in the ASSGN statement was being processed when this error was detected. In this case, the fourth field is in error. The IGN parameter can never be assigned to SYSRDR (refer to ASSGN command). If the ASSGN command

```
      1.     2.     3.
ASSGN SYSRDR,IGN
```

is processed in the same situation, message 1A03D is issued because, in this case, the IGN-field is the third field.

2. Normally, the END key informs job control that it should stop reading input from SYSLOG. But responding to a job control error by pressing the END key causes the error to be ignored and processing to continue.

1A0nD **INVALID I/O ASSIGNMENT**

n indicates the field processed when the error was detected.

Cause: Previous ASSGN specified invalid logical or physical unit,
or
Previous ASSGN attempted to assign the IGN parameter to SYSRDR or SYSIPT,
or
Previous ASSGN attempted to make a temporary assignment to SYSPCH or SYSLST when there was already a SYSOUT assignment, or SYSOUT has to be used. See DOS/VS System Management Guide, GC33-5371, under "Symbolic I/O Assignment" or
Previous ASSGN attempted to make an alternate assignment to a logical unit currently unassigned, or
Previous ASSGN attempted to make an alternate assignment to SYSOUT when SYSOUT cannot be assigned. See DOS/VS System Management Guide, GC33-5371, under "Symbolic I/O Assignment,"
or
Previous ASSGN attempted to make a temporary alternate assignment to a logical unit in standard mode, or
Previous ASSGN attempted to make a standard alternate assignment to a logical unit in standard mode, or
Previous / / ASSGN attempted to unassign SYSCLB, or
Previous ASSGN attempted to make a temporary assignment for SYSCLB, or
Previous ASSGN attempted to assign the IGN parameter to SYSCLB (see DOS/VS Operating Procedures, GC33-5378, under ASSGN or DOS/VS System Control Statements, GC33-5376), or
Previous ASSGN attempted to assign SYSCLB to a private core image library currently being condensed in another partition, or
Previous ASSGN attempted to assign SYSCLB to a private core image library already assigned to a partition where a compile, linkedit, and go is taking place, or there is no SYSFIL support in the supervisor.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise, the invalid assignment is ignored.

Operator Action: Issue the LISTIO command for both the physical and logical unit referenced by the assignment that caused the error. Check for any of the following errors:

- An invalid physical or logical unit.
- The IGN parameter in an assignment for SYSRDR or SYSIPT.
- A temporary assignment for SYSPCH or SYSLST when SYSOUT is assigned to a disk or magnetic tape.
- An alternate assignment for SYSOUT when SYSPCH and SYSLST are not assigned to the same disk or magnetic tape.
- A temporary alternate to a logical unit in standard mode.
- A standard alternate to a logical unit in standard mode.

Enter a new ASSGN command, or
Wait until the condense is finished, re-enter the ASSGN and resubmit the job (if a condense was in progress in another partition, SYSCLB is unassigned),
or
Enter CANCEL command to cancel job, or
Type IGNORE or press END key to ignore the assignment, if you can do without and continue processing.

1C00A **ATTN. cuu**

Cause: A unit exception has been detected on the specified channel and unit.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise, the condition is ignored.

Operator Action: If unit is a card reader: Refer the reader and type IGNORE or press END key to continue processing, or
Reassign unit to a tape or disk or another card reader. If unit is a tape or disk, type IGNORE or press END key to read the next record (see Note), or
Type CLOSE SYSxxx (where SYSxxx is the system logical unit that caused the message) and
Either mount a new tape or disk and reassign the same unit, or assign another unit. (See Note)

Note: If operating in more than one partition you should issue the STOP command. Otherwise SYSLOG will be locked and other partitions will be unable to access SYSLOG.

1C10A **PLEASE ASSIGN (SYSRDR, SYSIPT, SYSLNK)**

Cause:

1. A statement or command was to be read from SYSRDR, which is not assigned, or
2. An INCLUDE linkage-editor control statement with no operand was found and SYSIPT is not assigned, or
3. A / / OPTION CATAL or LINK was detected and SYSLNK is not assigned.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise, the invalid statement is ignored.

Operating Action: Assign (SYSRDR, SYSIPT, SYSLNK) and press END key (in case of SYSLNK resubmit the / / OPTION card), or
Type CANCEL to cancel job, or
Type IGNORE or press END key to continue processing if the statement which caused the message is not required.

If the problem recurs, issue a LISTIO command and have

- the output
- the job stream
- log sheet

available for problem determination.

1C32A **PROGRAM NOT FOUND**

Cause: The phase name specified in the EXEC command is not in the core image library.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise, the job is canceled.

Programmer Action: If the phase name entered by the operator is correct, execute DSERV to determine whether the program is in the core image library. If not, catalog the program or check that the correct SYSRES pack has been mounted.

If the problem recurs, have

- the job stream
- system dump
- DSERV output
- log sheet

available for problem determination.

Operator Action: Correct phase name in EXEC command, or
Check that the correct SYSRES pack is mounted, or
Reply CANCEL to terminate the job. Execute DSERV for the core image library, obtain a system dump, and return the output to your programmer, or
Press END key to continue processing the next job step, if your programmer does not need any documentation.

Note: If a new SYSRES pack is mounted, perform IPL.

1C33A/I **PROGRAM NOT FOUND**

Cause: The phase name specified in the / / EXEC statement is not in the core image library. 1C33A is issued if the job control command LOG was given, 1C33I if NOLOG was given.

System Action: The system waits for an operator response (A), or the job is canceled (I).

Programmer Action: Check the phase name in the / / EXEC statement. If it is correct, use a DSERV output to check that the program is in the core image library. If it is not, catalog the program or ensure that the correct SYSRES has been mounted.

If the problem recurs, have

- the job stream
- DSERV output
- system dump
- log sheet

available for problem determination.

Operator Action: Check that the correct SYSRES and SYSCLB are mounted or check the name in the / / EXEC statement. If correction is possible (See Note 2), reenter the / / EXEC statement, or
Reply CANCEL to cancel the job, then execute DSERV for the core image library and obtain a system dump, or
Press END key to continue processing.

Note 1: If a new SYSRES is mounted, perform IPL.

Note 2: If the name in the / / EXEC statement should be LINKEDT or ALTEDT, reenter the statements, starting from / / OPTION.

1160A **READY FOR COMMUNICATIONS**

Cause: The operator pressed the REQUEST key or the DUMP command has finished processing.

System Action: The system waits for an operator response.

Operator Action: Enter any valid command.

1170I **JOB JOBNAME CANCELED DUE TO CONTROL STATEMENT ERROR**

Cause and System Action: Self-explanatory

Programmer Action: Correct the error described by the preceding SYSLST message.

1180I **TAPE CARTRIDGE ERRORS CUU (PRE/RDE/WTE/ERG/NRC)**

Cause: This message identifies the following tape errors:
Pre=Permanent Redundant Read
RDE=Read Error Entry
WTE=Write Error Entry
ERG=Erase Gaps (record erased after write errors)
NRC=Noise Record Count

System Action: Processing continues.

1182A **RECORDING COMPLETED**

Cause: The operator issued the ROD command and ROD processing is complete.

System Action: The system waits for an operator response.

Operator Action: Shut the system down or press the END key to continue processing.

1183A **RECORDER FILE TOO SMALL**

Cause: A request has been given to create the recorder file, but the supplied extents are not large enough for the file (at least ten tracks required).

System Action: System enters wait state.

Operator Action: Re-IPL the system and provide sufficient space for the recorder file.

1184A **RECORDER FILE OPEN FAILURE**

Cause: Label information is not available or SYSREC is not assigned.

System Action: The system enters the wait state.

Programmer Action: Use the LISTVTOC output to check the label information on SYSREC. Use the LISTIO output to check the SYSREC assignment. Check the recorder pack to see that the correct one has been used. Make the necessary corrections and resubmit the job.

If the problem recurs, have the

- LISTIO output
- LSERV output
- LISTVTOC output
- job stream
- log sheet

available for problem determination.

Operator Action: Re-IPL the system, specify RF=CREATE in the SET job control command, and provide the label information or assign SYSREC,
or
Issue the LISTIO command, execute LISTVTOC for SYSREC, execute LSERV, and give the output to your programmer.

1185A **CONFLICTING DEVICE TYPES FOR CUU**

Cause: The device type in the PUB table does not match the device type in the SYSREC record. The recorder file may be on the wrong system, or an incorrect disk device type is being used.

System Action: The system enters the wait state.

Operator Action: Re-IPL the system and supply the correct recorder file or add the proper device type.

If the problem recurs, obtain a system dump at the time of the failure and have

- the output
- the job stream
- log sheet
- printer output

available for problem determination.

1186A **ERROR ON RECORDER FILE AT CCHHR**

Cause: An irrecoverable I/O error has occurred on the recorder file while accessing the indicated record (cchhr = cylinder, head, record),
or
An end-of-file was encountered before the extents were exhausted.

System Action: The system enters the wait state.

Operator Action: If RF=CREATE was specified in the SET command, re-IPL the system and create the file at a different location.

If RF=YES was specified in the SET command, re-IPL the system and run the EREP program to retrieve the information from the file and then recreate the file at a different location.

1189A **IPL REASON CODE =**

Cause: The reliability data extractor (RDE) function was specified when the supervisor was generated. The operator must specify the reason why IPL was performed.

Note: Under certain conditions this message may appear twice. Only one response is required, though.

10 - Processor failure (CPU, [integrated] channel, storage unit, etc).

20 - DASD failure in a DASD unit or its associated control unit (2311, 2314, 2841, etc).

30 - A device without an ID code (such as a paper tape unit) caused the failure.

40 - Magnetic tape failure in a magnetic tape unit or its associated control unit (2401, 2803, 3420, etc).

50 - Failure in a card reader/punch, a printer, or the associated control unit (2540, 1403, 2821, etc).

60 - Failure in a magnetic ink character reader (1259, 1419, etc), or an optical character reader (1270, 1287, etc).

70 - Teleprocessing failure in a teleprocessing control unit (2701, 2702, etc).

80 - Video display unit (2260, etc) or its associated control unit caused the failure.

90 - IBM-supplied Type 1 or Type 2 program (such as the DOS/VS system or one of its components) caused the failure.

91 - IBM Programming Product failure.

If the ID code is not entered (only the END key is pressed), the default, 00, is assumed. However, if an invalid ID code is specified, message 1192I is issued and message 1191A is repeated until a valid response is made.

Notes:

1. Always use ID code 00 with reason codes DF, EN, NM, OP, UN and UP.
2. ID codes 10, 20, 30, 40, 50, 60, 70, 80, 90, and 91 should be used with reason codes CE, IE, IM, and ME.

1192I **INVALID CODE**

Cause: An invalid IPL response code, sub-system ID, or end-of-day was entered.

System Action: Processing continues.

Operator Action: None

1193I **RECORDER FILE IS nnn% FULL (RUN EREP)**

Cause: The recorder file (SYSREC) is nnn percent full. If the recorder file spills, pertinent error information will be lost. (If the file is over 90 percent full, the RUN EREP comment is also printed.)

System Action: Processing continues.

Operator Action: Execute EREP if the file is more than 90 percent full.

1195A **HARD COPY FILE OPEN FAILURE**

ISOnD **INVALID STATEMENT**

n indicates the field processed when the error was detected.

Cause:

- The ROD command was issued and the ERRLOG option was not specified during supervisor generation or the recorder file (SYSREC) has not been opened.
- A non-existing partition has been specified in an ALDOCR, START (or BATCH) command.
- SIZE was specified as OK in the EXEC statement or as nK where n is greater than the partition.
- The referenced field (n) is invalid (ie, misspelled, wrong size, non-numeric character in numeric field).
- A command is given at the wrong time (eg, ASSGN issued in attention routine) or RF specified in SET command after the first JOB card was processed.
- The supervisor does not have private core image library support and one of the following occurred:
  - A / / OPTION CATAL or LINK statement was detected from a foreground partition, or
  - An assignment for SYSCLB was made for a partition.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise, the invalid statement is ignored.

Operator Action: Correct statement or command in error from console keyboard or SYSRDR, or
Type CANCEL to cancel the job. When an invalid EXTENT card is replaced, remember that the valid entries overwrite the default values or the values filled in by the previous EXTENT cards.

ISOnI **INVALID STATEMENT**

n indicates the field processed when the error was detected.

Cause: An invalid version modification operand on the CATALR statement was read by job control

System Action: The job is canceled.

Programmer Action: Correct the CATALR statement and resubmit the job.

If the problem recurs, have

- job stream used to catalog the module
- log sheet

available for problem determination.

3Cxx = CORGZ messages

3C301 STATEMENT OUT OF ORDER

Cause: While processing a private library, a wrong type of COPY statement was encountered. For example, a NEWVOL statement followed by a COPYC statement, or two ALLOC or NEWVOL statements were separated by some other control card, or two MERGE cards were not separated by a COPY card.

System Action: The job is canceled.

Programmer Action: Correct the job stream and resubmit the job.

If the problem recurs, have the
- job stream
- log sheet

available for problem determination.

3C661 **FILE (IJSYSRS, ISYSSPR, IJSYSPS IJSYSPC) NOT DEFINED ON (SYS003,SYS002,SYS001,SYS000)**

Cause: The specified file has not been defined on the proper logical unit. (For example, the file IJSYSRS has been defined, but not on SYS002 as it should be.)

System Action: The job is canceled.

Programmer Action: Correct the file definition card and resubmit the job.

If the problem recurs, have the
- job stream
- log sheet

available for problem determination.

Operator Action: Issue the LISTIO command and retain the output.

Programmer Action: Check if the proper RDE tape was mounted. A history tape created from a system without the proper supervisor generation option will not contain any IPL records.

3E39I **RDE SUMMARY IN PROGRESS**

Cause: Issued by EREPMNTR. The EREP program is indicating that it is processing the EREP RDE summary option.

System Action: This message is written on SYSLST only. The EREP program continues processing.

Operator Action: None

3E40I **END DATE TOO LOW, FIRST RECORDS'S DATE – YYDDD**

Cause: Issued by EREPRDE. The end specified is lower than the date contained in the first record on the history/RDE tape.

System Action: This message is written on SYSLST only. The EREP RDE summary option is terminated. None of the reports are generated.

Programmer Action: Perform one of the following actions and resubmit the job.
1. Supply the correct history/RDE tape.
2. Specify an end date later than the date in message 3E40I.
3. Use the default value for the end date.

3E41I **START DATE TOO HIGH, LAST RECORD'S DATE – YYDDD**

Cause: Issued by EREPRDE. The start date specified is later than the date contained in the last record on the history/RDE tape.

System Action: This message is written on SYSLST only. The EREP RDE summary option is terminated. None of the reports are generated.

Programmer Action: Perform one of the following actions and resubmit the job.
1. Supply the correct history/RDE tape.
2. Specify a start date earlier than the date in message 3E41I.
3. Use the default value for the start date.

3E42I **START DATE – YYDDD, END DATE – YYDDD, CLUSTER INTERVAL – M**

Cause: Issued by EREPRDE. The EREPRDE summary option is describing the control information specified in response to message 3E33A. The two date fields (YYDDD) will contain the start date and end specified in the control information. If either, or both, of the dates have been defaulted, the corresponding message field will contain 'DEFLT'. The cluster interval field (M) will contain the one or two-digit IPL cluster interval specified. If the cluster interval was defaulted, the field will contain 'NONE'.

System Action: This message is issued on SYSLST only. The EREPRDE summary option continues processing.

Operator Action: None

- Disk merge (CORGZ), the library does not exist on SYSRES, SYS002, or the private library and can be either the "copied from" or "copied to" file.

System Action: This message is printed on SYSLST only and the job is canceled, unless a DSERV is being executed and other library directory displays are requested. These other directories will be displayed.

Programmer Action: Use the LISTVTOC and LISTIO output to check for the missing library. If CORGZ is being executed, correct the control cards or mount the required library. If private core image library maintenance was attempted from a foreground partition, but SYSCLB was not assigned, resubmit the job with the SYSCLB assignment.

If the problem recurs, have the

- LISTVTOC output
- LISTIO output
- job stream
- log sheet
- printer output

available for problem determination.

Operator Action: Issue the LISTIO command, then execute LISTVTOC for SYSRES. Return the output of both to your programmer.

3M44I **PRIVATE CORE IMAGE LIBRARY ASSIGNED ELSEWHERE**

Cause: A private core image library has been assigned during MAINT or CORGZ; however, the same private core image library is currently assigned to another partition. In both partitions the private core image library assigned is on the same device with the same starting cylinder.

System Action: Processing continues.

Operator Action: If the same private core image library is required as that being used in the other partition, wait until the other job is finished, unassign SYSCLB and resubmit the job. Otherwise, assign a different private core image library and resubmit the job.

If the problem recurs, have the

- stand-alone dump
- VTOC list for each private core image library (IPL first!)
- job streams for all partitions currently operating
- console log sheet
- printer output
- current supervisor assembly listing

available for problem determination.

3M45I **NO (PRIVATE/SYSTEM) TRANSIENT DIRECTORY ENTRIES**

Cause: TD or ALL was specified on the DSERV statement but there were no transient directory entries in the private or system core image library.

System Action: The request to display the transient directory is ignored and processing continues.

Storage print to be used for Session 11 Pre/Post Test.

NOTE: Only pages of the storage print required for this session have been included.
COMREG is X'0278'

```
GR 0-F   01007318 00002D08 00007318 00003488   00004D94 000005F0 00000606 00006C50
         000078F8 00007464 00000318 01007318   00002000 00003000 8000224A 00000000
FP REG   00000000 C0000000 000C0000 00000000   00000000 00000000 00000000 00000000
CR 0-F   004000FF 0000BD80 FFFFFFFF FFFFFFFF   000C0000 00000000 00000C00 00000000
         00000000 C000C000 00CC00C0 C0000000   00CC0000 00000000 EF000000 00000200
COMREG   BG ADDR IS 000278
```

NOTE: Bytes X'00' through X'7F' intentionally omitted.

CHARACTER PRINT. A PERIOD IS A NON-PRINTABLE CHARACTER.

```
000080  00000318 00000040  00020021 00060011  1203E803 C0000000  00000000 00000000  ....... ..........Y.............
0000A0  00000000 00000000  00000000 000002C0  00000000 00000000  0000001F 00000000  ................................
0000C0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
    SAME AS 00000000
000260  00000000 00000000  00000000 00000000  00000000 00000000  F0F761F2 F461F7F3  ........................07/24/73
000280  D800D800 00000000  00000000 00000000  D7C1E8D9 D6D3D340  00048FFF 0003C0C3  Q.Q.............PAYROLL .......C
0002A0  0003C0C3 00000010  000BBFFF FD5ECED2  A0A0CED0 00953441  34483670 36710000  ...C..........;.K...............
0002C0  3228322E 323438F0  F7F2F4F7 F3F2F0F5  00003010 0000000C  39C00000 31083188  .......072473205..............
0002E0  31F80010 00000000  00000000 00000000  00002BD4 2F100000  00000000 027810E0  .8.....................M.........
000300  00000360 C0C00340  40404040 40404000  40404040 40404000  00004D94 00002458  ...-...        .        ...(.....
000320  054A0506 00003568  00001D1A 00003C18  00004B1E 000067A0  0000D800 02004C1E  ..........................Q...<.
000340  0014002C 00050000  00005880 00000000  00006770 00004D0E  60800800 00050606  ..........$.........(-........
000360  00007718 00000000  00004CBE 00004D14  00000010 00005C28  00000000 00006178  ..........<...(........*......./.
000380  00000000 00000000  00000408 00000000  00003602 00000000  00008B46 00007C90  ..............................a.
0003A0  0008045C 00000000  00000000 00007318  00002DF4 00002E14  00081018 00200000  ...*.................4..........
0003C0  00000000 00000000  00000000 00002C9E  00000000 00000000  00000000 00000000  ................................
0003E0  0000000A 01B90001  0000C480 0000BCE8  0000C0D0 00004F5C  00004FBC 00000000  ..........D....Y.......|*..|.....
000400  00000000 0003BFFF  00060033 01350000  FF000035 0000B5D8  0000AF96 00003418  ........................Q........
000420  00009514 00000000  000A0000 00001000  00002000 00003000  070E0000 00007464  ................................
000440  01007318 00002000  00003000 8000224A  00004FD0 00004B1E  00080700 00000000  ..................|.............
000460  00000000 00000000  04F4054A 00000000  00000000 00000000  00002C84 0000C670  .........4.....................F.
000480  00000008 00020406  080A0C0E 00183048  607890A8 00000000  00000000 00830083  ..................-.............
0004A0  00830083 00830083  00830083 00830083  00830083 00830083  00830083 00830083  ................................
0004C0  00830083 00830083  00830083 00830083  00830000 00830083  00838300 83008001  ................................
0004E0  00006C50 00000000  0000AEB3 06B006B0  06B006B0 06B006B0  48B00482 06B006B0  ..%&............................
000500  06B006B0 06B006B0  06B006B0 06B006B0  06B006B0 06B006B0  06B006B0 41BB001F  ................................
000520  418B0010 18F69503  035D4770 056C4590  05E047F0 056C06B0  06B006B0 06B006B0  ....6...)...%....0.%..........
000540  06B006B0 06B041BB  001F06B0 06B041BB  001B4570 05B45890  032C41F0 923A1211  ..........................0.....
000560  4770056C 41F09338  94633006 42B0A001  58B0042C 960CA00F  07FF960C A00F4400  ...%.0..........................
000580  B2CA077F 920002E7  92830407 92000371  4560B15E 41600606  07FF06B0 06B006B0  ...".....X...P.....-.;.-........
0005A0  06B006B0 06B006B0  06B006B0 50B00000  82000428 1B11D300  04503004 95FF3002  ............&.........L..&......
0005C0  07871841 43403002  89400003 5A40033C  18A143A0 40074AA0  02D25810 400007F7  ..... ... ... ..... ....K.. ..7
0005E0  9200035D 92040459  928304C5 94FE035A  07F94590 BD1A9283  A0005880 A0045000  ...)......E.....9.............&.
000600  80309200 80309200  04599500 03E74780  0744A003 CD049500  035D4770 078ED210  ..........X...........)....K.
000620  CC89CC9E 489002D2  DC10CC89 9000DD14  CC850456 47B006D0  1BAAACFC CD0443A1  .......K.......................
000640  001542A0 035D940F  035D4770 076240A0  03724AA0 02F4D200  02A7A00D BF93A000  .....)...)....  .....4K.......
000660  40900016 41AA0100  9283A000 5880A004  12884780 BC4A917F  A0044770 07B29108  ....................."........
000680  A00F4710 B0645880  A0049214 04596800  80586820 80606840  80686860 8070D500  ..................-. ...-..N.
0006A0  037302A7 4780068E  96078008 920D8009  4400BBF6 4780068E  D3008009 02A7D207  ..................6....L.....K.
0006C0  04388008 98988010  92080459 82000438  96030039 96030038  91010359 4710075E  ................................;
0006E0  58E00398 4150E898  950004E4 47800758  483003E6 12334780  07544830 02B85840  .....&....U.......W............
000700  04E895FF 30004780  075495FF 30024780  073C9118 30064770  073C9500 30044780  .Y..............................
000720  073C95B0 30044740  075895E0 30044780  0758DD00 30044000  47800758 41303008  ....... ............. .........
000740  47F00702 950004E4  47800612 58E00398  47F0EBA4 4150E88C  ACFCCD04 05958200  .0.....U.........0..............
000760  003843AA 03B85AA0  038050A0 03B44880  A0009585 80009287  800047D0 078658F0  ..............................0
000780  041847F0 F1324770  079647F0 B23258A0  03B4ACFC CD041B88  4380A002 42800373  ...01.....0.....................
0007A0  4A8002F4 D20002A7  800D5880 A00447F0  068E4770 07BC9273  A00007F6 58E00398  ...4K..........0.............6....
0007C0  9103A004 4710E256  92040459 4770E240  9110A004 4710E26C  9104A004 4710E28E  ......S.......S ......S.......S.
0007E0  58E00454 9108A004  4710E03A 47F0067E  92380855 95000459  478008D4 909E0438  .............0.............M.....
000800  5890032C 58B000B8  48A00372 9500035D  47800828 58B003B4  42A0B002 4AA002D2  ................................K
000820  58B0B004 47F00850  4AA002D2 4BA00836  50B0A004 41AA0100  58B0A004 92000459  .....0.....K....................
000840  6000B058 6020B060  60408068 6060B070  D207B008 0038D217  B0100438 90F8B028  -...-..— ..--..K.....K......8..
000860  4860035E 58B0042C  41CBB000 41DCB000  07F9909E 043847F0  08929107 00884780  .-.................9.....0.....
000880  08925890 03604180  043848C0 02A645A0  90689220 085558B0  00884590 08089551  .....-.........................
0008A0  008B4720 05004870  008A1A77 4877CD56  92040459 07F79218  08559500 04594780  ....................7..........
```

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0008C0  08D4909E 043858B0 00844590 080858E0 045407FE 5890032C 95380855 078947F0
0008E0  08CE9680 1002941F 10029405 1003D401 10041004 9140100C 47E00912 9140A00C
000900  47E00912 5880100C 057847F0 090E920C 100407F6 4B30CC58 950E1007 47F009A4
000920  41403002 18894380 40001848 89400003 5A40033C 95FF4000 47700926 42904000
000940  07F64850 035C1255 47700968 4121000F 4580BBF6 58701008 91801006 47700500
000960  95FF7000 95FF7007 1B331893 9501035D 47700980 43301007 419000FF 47F009A8
000980  43901007 4330A00D 1A39913E 10064770 050C9101 10064780 09144190 00FFD500
0009A0  1007A00E 47B0050C 4290CD32 4230CD31 4250CD30 5850CD30 18231A22 4A2002C4
0009C0  43320000 4930CC52 4720050A 478008E2 89300003 4A300288 D3000450 300407FE
0009E0  47F009EE 58F00374 58F0F01C 05EF95FF 033C4780 B2DE45E0 09429500 30044770
000A00  0AB29115 10024770 0AB29160 100C4770 0AB25870 100891F6 70004770 0AB291DF
000A20  70044770 0AB2D501 7006CF02 47200AB2 95017007 47400AB2 58207000 95FF2000
000A40  4A207006 062095FF 20005880 CF049180 800A4710 0A624140 007D9200 04D347F0
000A60  B2E24140 80685940 CF084740 0A725840 CF0C5040 CF04941F 800A5820 70004840
000A80  70064240 80070640 4440CEFC D2008000 7000D200 80047004 D201800E 10069680
000AA0  10024110 80089405 10039200 100447F0 0ADA941F 10029405 10039200 10049200
000AC0  10059180 A0044780 0ADA9500 035D4770 0ADA5890 039C4580 901C1B99 4390033C
000AE0  18498940 00035A40 033C4350 03735050 40049200 04594350 40004250 033C5010
000B00  400092FF 4Q00D300 04503004 9180100C 47100B42 5880037C 18734930 02B847B0
000B20  0B264870 30084B70 02B88870 00024877 80345A70 8030BF87 70004188 0001BE87
000B40  70009560 04504770 0BB29501 40044780 0BB25880 10089507 80004770 0BB21B00
000B60  4570BCA0 125F4780 0BB2B1FF 00054770 0BB259F0 04044720 0BB21B22 43203005
000B80  4C20CC6A 5A200350 D5035001 20004780 0BB29140 80044780 0BAC948F 8004D200
000BA0  10001002 96041002 9601100C D2032000 500195FF 30024770 09204290 30029103
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000BE0  70004710 0C024170 0E409F00 20004790 0C020727 95B03004 47800C02 95C03004
000C00  07775870 10089560 04504780 0C1E9501 40064720 0C1E9120 30064710 05369500
000C20  30044770 0C2A9283 04D39504 40064780 0E5C9550 04504770 0CC89551 30044780
000C40  0CC845E0 BBD29124 80084780 0C6A5890 032C9104 80084710 96969501 40044780
000C60  0C6A9101 80084780 0C8A9504 70004780 0DF25070 CEB89208 CEB84370 30054270
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000CC0  9203CEB8 47F00C7A 1B0091F0 40044780 0DF29101 100C4710 0DF29560 04504770
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000D20  BFF3F000 9140F038 47100DF2 45800DBA D5065000 500A4720 053A5070 00481897
000D40  41807008 4570BCA0 128F4780 053AB1FF 00044770 053A59F0 04044720 053AD204
000D60  CD408000 95024006 47400DAE 43F0CD44 41FF0001 42F0CD44 D504CD40 50024770
000D80  053A4189 00184570 BCA0128F 4780053A B1FF0007 4770053A 59F00404 4720053A
000DA0  D5075002 80004770 053A47F0 0DF64400 0D784770 053A47F0 0DF64850 F0604155
000DC0  00609502 40064720 0DEC4780 0DE89501 40064770 0DDE91A0 F09747E0 0DE49181
000DE0  F0970748 4850CC56 4850CC56 4850CC56 07F88E77 0049D300 00484004 18F288F0
000E00  000843FF 048C5AF0 03489C00 200047F0 0E265880 0360909B 801C1898 45A09060
000E20  04A0989B 901C0726 5890032C 47109696 185A4740 95C69015 F0049680 300607F6
000E40  91403006 07859505 035D0785 95003003 07754122 01001875 47F00BEA 91037000
000E60  47B00DF2 910F4004 47800E7A 58E07000 D502CC71 E0004780 0DF2D201 CC6CA002
000E80  BE77CED9 4170CED0 47F00DF2 41110000 9500035D 47800500 41400079 95FF033C
000EA0  4780B2E2 45E00942 4820035C 4322CC7F 5870CC78 1A27D207 20003000 92FF2002
000EC0  94632006 40302008 12114780 0EFC94FC 20079103 300747E0 0F304177 000C4930
000EE0  70084770 0EDA1972 47800F34 91037007 47700EDA 96037007 47F00F34 91033007
000F00  47800F0C 94FD2007 47F00F34 95FF3002 47800F30 91103006 47100F30 91803006
000F20  47E00F30 96013007 96012007 47F00F34 96033007 183247F0 0AB245E0 09429580
000F40  04500746 5010CD30 45700584 12110786 5890032C 95FFCD30 47800FE6 48203000
000F60  91103006 4710B2DE 91803006 47800FDA 91043006 47700FDA 9F002000 47000F96
000F80  18FF43F0 300043FF 048C5AF0 03485930 F00C4770 B2DE941F 10029405 10039E00
000FA0  200047A0 B2DE4710 96969106 00454780 0FBE9602 041158F0 041847F0 F26E95D0
000FC0  30044780 0FCE9570 00444780 B2DE18EA 4BE00836 9519E007 07764020 00BA5890
000FE0  032C47F0 923A18E1 18F49140 E00647E0 B01A9160 E00647E0 8004D502 E01DCD31
001000  4770B022 58E0E008 9203E010 9203E028 9201E017 9201E02F 07F6BDE7 CD314780
001020  0F5C95FF F0004780 0F5C18FF 43F0F000 89F00003 5AF0033C 58E0F000 47F00FEA
```


Appendix D - (Part 3 of 13)

001040	18004590	BD1A9283	A0005880	A0045890	802C1299	4780B05A	18095000	800C9200	.....
001060	800C07F6	4400B8F6	4780B080	4400B2CA	4770B0C2	4560B15E	41600606	47F0B0C2	...6...6.....B.-...-...0.B
001080	9180A001	4710B0C2	5880A004	48700288	5070802C	486002D2	96206008	95806000	.......B.....-.K..-...-.
0010A0	4780B0AC	95816000	4770B0B0	92836000	41600606	950002A7	4780BC4A	9281A000	.....-.....-..-.....
0010C0	07F69140	A0044780	B0D69740	A0049783	04C99780	067B9204	04594590	C5144110	.6. .....0. .....I.....E...
0010E0	CC6258F0	03984530	E9324570	BC3447F0	B0FC58F0	037458F0	F02005EF	4400B8F6	.....Z.....0...0...00.....6
001100	4780B11A	D5071000	CEF24770	B1124540	C4BE9583	04D74770	B2CA9500	04C54780	....N....2..... D....P.....E..
001120	BD1A58F0	03345880	045090F1	8028180F	41FF0008	50F0800C	96078008	94F7A00F	...0.....1.....0.....7..
001140	4590BD1A	9283A000	4400B8F6	0786D700	02E702A7	D7000371	03739783	04D75880	.....6..P..X..P.....P..
001160	A0044820	02D2D202	A0052009	BE872009	482002F4	4BA00836	5880A004	D203A004	.....KK.....4.....K...
001180	20045082	00044AA0	083607F6	4400B8F6	4780B19C	9505035D	47700500	18314570	.....6...6.....
0011A0	05B4D201	00BA3000	9180100C	07765890	032C9110	30060716	91803006	47E0923A	..K.....
0011C0	48203000	9F002000	4790923A	18F288F0	000843FF	048C5AF0	03484920	F00A0786	.....2.0.....0....0...
0011E0	47F0923A	58200318	9505035D	4780B2A6	41210003	4580BBF6	1B334331	00011B44	.0.....6.....
001200	434I0003	49400482	47400508	41234000	4920CC56	47B00508	18104121	30004580	....
001220	B8F65A40	00144430	B22C07F6	D2004000	10005820	0318D200	03732010	48A002F4	.6. .....6K. .....K.....4
001240	4AA00372	D20002A7	A00D4AA0	083695AE	201B4770	B260D201	20062024	47F0B2A4	....K.....-K.....0..
001260	D2012006	CCFE4830	20184400	05B69550	04504770	B2A49551	30044780	B2A445E0	K.....
001280	B8D29120	800847E0	B29E5890	03ACD501	80069006	4770B29E	180947F0	B2B2D201	.K.....N.....0..K.
0012A0	2006CD00	0A054110	20005800	03AC4590	BD1A41B0	CE1450B0	03B418B0	920004DB	.....
0012C0	9205035D	0A2147FB	000AD500	03730371	47800500	9281A000	1B3347F0	B30E4140	.....N.....0...
0012E0	00831B33	9500035D	4780B30A	4570B772	58805004	47F0B31C	48400458	47F0B2E2	.....0... ...0.S
001300	4560B2D8	41600606	07F74240	A0005880	A0041288	07869108	A00F0776	5890800C	.-.Q.-...7. .....
001320	06900690	91020089	4710B330	06900690	1B935090	800C07F6	92040459	91801002	.....6.....
001340	07764130	00084140	008247F0	B2E44820	02D25880	20085870	A004D203	702C800C	....0.U...K.....K.....
001360	D2028000	702547F0	B37C4820	02D25880	20085870	A004D203	700C802C	9001802C	K.....0.....K.....K.....
001380	47F0B15E	47F0B392	58F00374	58F0F024	05EF4400	B8F64770	05004560	B14E4160	.0...0...0...00.....6.....-.+.-
0013A0	06069120	03590786	94DF0359	58E00454	47F0E03A	58200014	12114770	B3C494F8	.....0.....D..
0013C0	203B07F6	4550B3F8	D4001000	CD3FD400	20391000	07F65820	00141211	4770B3E6	...6...8M.....M.....6.....W
0013E0	9604203B	07F64550	B3F8D600	1000CD3F	D6002039	100007F6	5010CD3C	9180CD3D	.....6...80.....0.....6.....
001400	47850006	1B114310	CD3E1A12	44050000	07F64400	B8F64780	04FE9204	04595880	.....6...6.....
001420	A0044550	B4D647F0	B4BA4550	B43A47F0	B4944550	B43A47F0	B4B24870	02DC47F0	.....0.0.....0.....0.....0
001440	B4C64550	B45A9834	700047F0	B4944550	B45A9834	700047F0	B4B24870	03724140	.F.....0.....0.....
001460	00101B74	8A700001	4A7002DE	07F54550	B47E47F0	B4944550	B47E47F0	B4B24870	.....5.....0.....0....
001480	02E0D500	037302A7	47700500	47F0B4C6	4550B4C2	12004780	B4A24121	00474580	..N.....0.F...B.....
0014A0	B8FE1233	4780B4AC	13001814	90017000	07F65880	A0044590	B50E1333	50370000	.....6.....
0014C0	07F65870	036C4880	03728880	00011A78	98347000	07F5D207	40008008	D2234008	.6.....5K. ...K. .
0014E0	802CD218	402C8010	4BA00836	4390A005	89900005	42904004	D6004004	4002D201	..K. ..... .0. . .K.
001500	4002A006	5030800C	4AA00836	07F54BA0	0836D201	A0064002	18554350	40048850	.....5....K... ....
001520	00068950	00014250	A0054AA0	0836943F	4004D200	800A4004	D7004004	4004D203	..... .K... .P. . .K.
001540	800C4004	D21B8010	402CD223	802C4008	07F991F0	00214770	05009740	A0049783	.. .K... .K... ..9.0..... ....
001560	04C99780	067B5880	A0041200	47B0B576	D3008009	02A78D01	04284780	B5849603	.I.....L.....
001580	800807F6	94FC8008	07F691F0	00214770	05001899	47F0BD1A	18311810	41210003	...6.....6.0.....0.....
0015A0	4580BBF6	947F1002	5880A004	50008030	13114550	B45A9001	70001813	58200050	...6.....
0015C0	5520CCC8	4720B612	15124780	B6105010	00505850	03681F21	95005000	4780B5F2	...H.....2
0015E0	BF4F5001	1E42BE4F	50014155	000547F0	B5D84570	B6544850	CEE0D200	CEE10373	.....0.Q.....K.....
001600	12550786	49500372	07861812	47F0B626	1F124570	B6544850	03724950	CEE04770	.....0.....
001620	B6269200	CEE14140	00055830	03684130	3046D204	30053000	18345930	03684740	....K.....
001640	B64A5513	000147D0	B632BE1F	30064253	000507F6	58300368	41500005	4140004B	.....6..... ..
001660	D5003000	03734780	B67C9500	30004780	B6864133	00051845	47F0B660	4240B681	N.....0.-. ..
001680	D2003000	300507F7	58300050	1B11D500	CEE10373	4780B6BC	58100368	D5000373	K.....7.....N.....N...
0016A0	10004780	B6B69500	10004780	B7184111	000547F0	B69CBF5F	10011A35	41400300	.....0..... ..
0016C0	18221D24	5880A004	5030802C	12000786	12114780	B6ECD204	10001005	95001005	.....K.....
0016E0	4780B6F0	41110005	47F0B6D6	9200CEE1	48300372	41400010	1B348A30	00014A30	...0.....0.0..... .....
001700	02DE5813	00041211	07A61011	96801002	D7073000	300007F6	1B225880	A0045020	.....P.....6.....
001720	802C07F6	91F00021	47700500	4580BBFE	07F69210	04599500	10004770	B7525831	...6.0.....6.....
001740	00009180	30024710	B75A4111	000447F0	B73694FE	A00047F0	B2D85880	A0045030	.....0.....0.Q.....
001760	803047F0	06689500	035D0786	18764140	00835850	03B44880	50004240	80009200	...0..... ....
001780	035D07F7	9500035D	4780B790	58A003B4	5880A004	5820800C	D200CC45	20019507	...7.....K.....

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0017A0  20004780 B7AE4122  000A9200 CC455020  800C5850 00149140  50874780 B7CAB205  ..... .....
0017C0  CBF04780 B7D2948F  50871B00 1B1147F0  B8E29801 CBF08C00  000C9001 CBF09823  .0...K.....0.S...0.....0..
0017E0  CBE01F13 4730B7EA  06001B02 9823CBF8  1B441F13 4730B7FA  06001B02 41440001  .....8.....
001800  478087F2 06401E13  47C08810 4A00CE76  1A025040 CC249823  CBF01F31 47308822  ...2. ..... .....0.....
001820  06201820 41F00002  9001CBF0 5E10CBF4  47C08838 4A00CE76  5A00CBF0 46F0B82C  .....0.....0...4.....0.0..
001840  5D00CC2C 9023CC00  5D20CC1C 5D20CC2C  4590B932 D205CBD4  CC325820 CC084E20  .....K..M.....+.
001860  CBE8960F CBEFF327  CBDACBE8 BFFCCBDE  4590B902 50F0CC10  D501CBDE 505E4780  .Y....3....Y.....0..N.....
001880  B8CE4590 B9244590  B8E85840 CC248FFC  505E4590 B90250F0  CC109102 503B4710  .....Y. .....0.....
0018A0  B8B84590 B924D201  5000CC32 D2015003  CC34D201 5006CC36  D207CBE0 CC009101  .....K.....K.....K.....K.....
0018C0  CC454710 B8E25810  CC1047F0 B8E24590  B9244590 B8E89102  503B4710 B8B847F0  .....S.....0.S.....Y.....0
0018E0  B8A65010 803007F6  D205504F CC325820  CC084E20 CBE8960F  CBEFF327 5055CBE8  .....6K.....+..Y....3....Y
001900  07F98AF0 00105CE0  CC141AF1 58E0CC18  12FF4740 B91E4144  00011BFE 07B91AFE  .9.0..*....1..... .....
001920  064007F9 9823CBE0  5D20CC1C 5D20CC2C  1A344133 00015D20  CC208930 00024122  . .9.....
001940  000141F0 016E192F  47D0B95A 41330001  1B2F41F0 016D47F0  B9469023 CC081BFF  ...0.....0...0.....
001960  921CCC3A 9103CC0F  47708970 921DCC3A  41E00001 43FECC38  192F47D0 B9881B2F  .....
001980  41EE0001 47F0B974  5830CC0C 4CE0CC2E  4C20CC30 1A3E1A32  4E30CBE8 960FCBEF  .....0.....+..Y....
0019A0  F357CC32 CBE807F9  1B2218E2 43210000  41421003 18244580  BBF6BD17 04054740  3....Y.9...S.....6.....
0019C0  BA021821 48300372  88300004 4133CD45  D2003000 03739680  047458E0 039845C0  .....K.....
0019E0  E4F41824 45C0E4F4  41CBB000 92003000  41E000AF D60FCD45  CD454770 BA02947F  U4....U4.....0.....
001A00  04745820 03189101  21A64770 BA4ED72B  219C219C 92AE21A7  12EE4780 BA2E42E0  .....+P.....
001A20  21B248E0 048041EE  000140E0 0480D201  21B0CCFA 5010219C  D20321A0 100040A0  ..... ...K.....K..... .
001A40  21A49200 10025890  032C47F0 9C7041F0  B2DE12EE 4780B2DE  B1340000 8830000B  .....0...0.....
001A60  45C0E54A B1310000  88300008 45C0E54A  41CBB000 07FF1831  18104121 000B4580  ..V.....V.....
001A80  BBF61813 41900001  47F0BD1A 58E00398  47F0E468 58E00398  47F0E2A6 1B225830  .6.....0.....0U.....0S.....
001AA0  10004320 10064223  00001A22 5A200390  4600BAC0 92FF3000  D4012000 100407F6  .....M.....6
001AC0  D6012000 100407F6  94FB1000 07F658E0  039841FE B00047F0  ECAA58E0 039841FE  0.....6.....6.....0.....
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001B20  58E00398 98DFEB0A  47F0F056 58E00398  98DFEB0A 47F0EF1A  58E00398 12004770  .....00.....0.....
001B40  BB484530 E93207F6  48500372 88500001  5A50EAC6 50050000  07F65890 039C47F0  ....Z..6.....F.....6.....0
001B60  9B545890 00149602  908607F6 58E00398  41FEB000 47F0EFEC  18205890 039C4570  .....6.....0.....
001B80  988A4110 002C47F0  BB065880 A00458F0  8028D503 F004BBB4  47700500 58900374  .....0.....0..N.0.....
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001BE0  48803008 4B8002B8  88800002 4888F034  5A80F030 07FED502  0451A005 0788B152  .....0...0...N.....
001C00  00004120 BC1E4770  BC284350 02A70955  5450CD18 495002A6  078247F0 05081828  .....0....
001C20  B1510000 4780BC0A  47D00508 48550000  47F0BC10 48800372  88800003 5850CC8C  .....0.....
001C40  1E581188 BE8C5000  07F74110 CC5A9160  A0084780 B0EE9500  04C54780 BD1A9285  .....7.....-.....E.....
001C60  A0009500 04DB0786  58200318 D2012006  CCF69140 A0084710  B2A692E9 200692F1  .....K....6. .....Z...1
001C80  200747F0 B2A61876  5880A004 9500035D  4780BC9C 588003B4  58808004 5880804C  ...0.....
001CA0  9046CD30 1B4418F4  D5038001 8001BF47  80015940 04044720  BD0A9104 80044780  .....4N.....
001CC0  BCEC5864 00005460  CD2C4B60 CD2A1366  19064740 BCE04144  00041B06 47F0BCC2  .....-...-..... .....0.B
001CE0  58440000 59400404  4720BD0A 1A405860  03EC8C40 000B8940  00034846 40041244  ..... ..... .-... ... .... ...
001D00  4740BD0A 8D40000B  18F49846 CD301967  07774110 002847F0  BB064140 006F9500  . ... ...4.....0... ....
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001D40  BD585820 A0085090  20501892 92009058  47F0BD5C 9601035A  960104DF 9203035D  .....0.*.....
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001D80  4A7002C4 95FF7000  4780BD90 9640CC4B  910F04DF 4770BDA4  D2009059 CD0FD200  ...D..... .....K.....K.
001DA0  905ACC4B D207CCD4  100094FB CD0B94DF  CC489103 02B14770  BDF61B88 D503CCD4  ....K..M.....6..N..M
001DC0  CEAC4780 BE20D501  CCD4CEAC 4780BE24  955BCCD4 4780BE1C  9540CCD4 4780BF18  ......N..M.....$.M..... .M....
001DE0  91C0CC4B 47B0BDEC  970DCD0F D502CCD4  CC744780 BE185880  CEDC9510 02A74780  .....N..M.....
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001E20  41880100 41880501  9620CC4B BE8FCD23  9200CD22 950BCD0F  4770BE58 18EA4BE0  .....
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001EC0  BEC40A07 91201002  4780BEE2 9506CD0F  478005A8 459005E0  18F641BB 001A47F0  .D.....S.....6.....0
001EE0  056C9120 CD0B078E  4870CD22 41770001  4070CD22 D201CD25  CE765870 CD144B70  ..... ...K.....
001F00  04829592 70004770  BEB007FE 59205000  4780BF5E 47F0BEA4  91C0CC4B 47B0BF2C  .....0.....
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001F40	BF481896	47F005E0	9500C0A9	4770BF5A	1B110610	180147F0	C0A847F0	0502D20B
001F60	CCDC5008	1B334330	CCDF0630	4C30CE5E	4850CCE6	12554720	BF801055	48300482
001F80	1A35910F	04DF4770	BF90D213	905CCCD4	18F31B22	BF28CCE3	BE2FCD23	943FCD25
001FA0	88200006	BE22CD22	9823CCDC	8C200008	D704CCE8	CCE89180	CCE64780	C0144050
001FC0	CCE6910F	04DF4770	BFD44050	906ED204	9070CD22	9680CCEC	4170CE58	45E0BEB0
001FE0	487002D2	484002A6	58447004	4400BBF6	4770BFF8	58470008	41440078	5870CE58
002000	D201CCF4	70049200	70005B47	00001A24	1A341B42	1859910F	04DF4770	C0269204
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002040	9180CCEC	4780C056	BE27CCDC	4850CCE6	11554050	CCE69824	CCDC9024	80001896
002060	47F005E0	18104111	00001E03	1B021211	4770C078	18121803	910F04DF	4770C08C
002080	59100404	4720C08C	9602204F	9180CCEC	4780C09A	1A415040	CCE8910F	04DF4770
0020A0	C0A8D20D	9078CCE8	47F0C0CC	4150CCD4	58800360	909B801C	18984880	02A645A0
0020C0	906C989B	901C1200	47408F5A	182F1BFF	43F0CCDF	910104DF	4710C152	1A210620
0020E0	D501CCD4	CEAC4770	C0F65920	03384780	C10647F0	C1524880	02A64A80	02F4BF83
002100	80005020	80244580	BBF69180	CCEC4780	C1521821	5840CE58	41440008	4830CE5E
002120	46F0C128	4830CCE6	4B300482	1853910F	04DF4770	C13A920C	90580E24	181212FF
002140	4770C152	D603CCE8	CCE84780	C33C47F0	C2C01881	5870CCC4	5830CCD0	910F04DF
002160	4770C184	92089058	D2049070	CD229098	9010D203	9054C3FC	41370020	41470030
002180	92FF4000	41707008	19734780	C22ED20F	7000CE58	BE877001	18284A80	CE5E49F0
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0021C0	00001882	18521828	58E00398	45CE04F4	41C8B000	1825B158	00005054	00004144
0021E0	000492FF	40004158	08008A50	000B8B50	000B1875	1B581887	1B154720	C1C49878
002200	300846F0	C18447F0	C22ED201	7006CCE6	92207004	D603CCE8	CCE84780	C1A606F0
002220	597004E0	4780C290	D2077000	CE605870	04E09104	70044780	C2464830	04804A30
002240	CD284030	048045E0	BEB05830	04E09104	30044780	C28A5843	000095FF	40004780
002260	C27E5834	00008A30	000858E0	039845CE	054A41CB	B0004144	000447F0	C25A4830
002280	04804B30	CD284030	048012FF	4720C154	D603CCE8	CCE84780	C33C910F	04DF4770
0022A0	C2AC920C	9058D204	9070CD22	4170CE58	45E0BEB0	5840CE58	4830CCE6	18530E24
0022C0	4830CCF4	12334780	C33C1B88	41F40003	54F0CCF0	BDF7CCED	47B0C34E	925AC306
0022E0	D600C306	F000582F	00001222	4780C33C	5E20CCE8	18728870	00185850	CCF08D40
002300	70094440	C36C5A70	CCE84440	C370910F	04DF4770	C3344122	00008820	000B1A22
002320	19284780	C33458E0	039845CE	0B3241CB	B0001882	41FF0004	4630C2D4	415005E0
002340	910104DF	4710C34C	58909050	07F5910F	04DF4770	C35CD204	9070CD22	4170CE58
002360	45E0BEB0	58F0CE58	47F0C2DC	BF702000	BE702000	926FA000	950004C5	4780C3A4
002380	920004C5	9203035D	94F004DF	D203900C	90544110	CE0C5010	03B41B11	43109058
0023A0	47F1C3EA	9601A004	07F6D200	CD0F9059	D200CC48	905A5810	90308200	9008D204
0023C0	CD229070	4170CE58	45E0BEB0	58709048	D20DCCE8	9078D213	CCD4905C	47F0C3B6
0023E0	D204CD22	907047F0	C3D047F0	C3AA47F0	C38647F0	C3E047F0	C3BE0000	00002154
002400	58600318	95AE6018	4770E048	48F0035E	95AF6026	4770E048	58206010	81320000
002420	88300008	58E00398	45C0E54A	1B334330	60148132	30038830	000845C0	E54A48C0
002440	048006C0	40C00480	D2DB6010	603CD2AF	60EC6118	94FE61A6	48A002D2	4AA00372
002460	988D042C	9101601A	47E0C474	96800359	9285CC88	9200035D	41600606	928304DB
002480	5890032C	07FF9550	037347D0	C4869104	A00F4710	C49E9223	A001960C	A00F1200
0024A0	4780C4B6	45F0057A	921CCEFA	18764590	C99447F0	C4F29608	A00F47F0	B0649218
0024C0	CEFA9550	03730724	9102A00F	07841876	9282A000	9104A00F	4710C4E2	D200A001
0024E0	CEFA45F0	057A4590	C994921D	CEFA4590	C9B4910C	400F4770	C4EE960C	400FD200
002500	4001CEFA	95874000	4780C4EE	92834000	47F0C4EE	9101A00F	4780C534	94FEA00F
002520	4550B4C2	BE48A001	4590C640	4590B50E	4190B0DE	9217CEFA	4540C4C2	9104A00F
002540	4710C554	95500373	4720C784	9223A001	960CA00F	9523A001	07899510	A0010789
002560	95000373	07899517	A0010789	9518A001	0789184A	48400836	BF2F4008	4780C584
002580	96402002	455084C2	12330789	45F0057A	D7037000	7000D200	7004A001	5880A004
0025A0	4550B4D6	D702802C	802CD200	802FA001	947F802F	50408030	94F7A00F	9601A00F
0025C0	4550B43A	D7077000	7000D501	02A60372	4770C5E2	487002E0	4550B4C6	D7077000
0025E0	70004870	03724140	00101B74	8A700001	4A7002DE	D7077000	7000D500	CEE10373
002600	4770C60A	9200CEE1	07F65870	03680540	D5000373	70004780	C6269500	70004177
002620	00050774	07F60540	D2047000	700547F0	C61A5884	0004D502	40050451	47F0C648
002640	5880A004	4400BBF6	07794880	02D25880	B00807F9	D5010372	02A64770	05001831
002660	4121000C	4580BBF6	18104121	007F4580	BBF65813	00001821	4580BBF6	BF1F3004

Appendix D - (Part 6 of 13)

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002680  4780C690 41210003  4580BBF6 943F1002  BF1F3008 4780C6A0  41210047 4580BBF6  ..F........6.........F.........6
0026A0  DD0FCEE2 CEE24770  C6CC4110 04DC9583  04A74770 C68A947F  10025880 A0045010  ...S.S..F...........F...........
0026C0  80309680 80309251  A00007F6 1B224321  00008920 00049200  1000184A 485002D2  ..........6.....................K
0026E0  1A525005 0004D204  50004000 D203500C  400C948F 500C9480  50049200 500194FA  ......K... .K... ..............
002700  500F4840 08364B50  0836D20F 50004000  D2035008 30045840  A0041850 D26F5008  ... ......K... .K....... ....K...
002720  40084225 00784105  00805004 002C947F  40305045 0030D202  500D3001 4110CCAD   ............... .....K..........
002740  18000610 43010000  D2001001 10004900  02A64770 C7424221  00008F1F 30084780  .........K...........G...........
002760  C77E5840 036C1854  88000001 1A408820  00011A52 02035000  40005015 00049602  G.. .......... .......K... .......
002780  A00F07F6 05000373  02A74770 C7D81211  47800500 4121007F  4580BBF6 910F1078  ...6N.......GQ..............6....
0027A0  47700500 95501078  47D00500 1B224321  00784A20 02F4D501  02A6200C 47700500  ........................4N..........
0027C0  41220100 910C200F  07769210 20019601  20009608 200F07F6  9101A00F 4710C4B6  ........................6.......D.
0027E0  5840033C 48700340  D5000373 40074780  05204144 00084670  C7E845F0 057A5880  . ..... N... ..........GY.0.....
002800  A0049200 807858E0  03984530 E932182A  4B200836 58120008  12114780 C82C9680  ............Z..............H...
002820  1002D703 20082008  4570C9BE 9280A000  182A4B20 08369200  200DD701 A002A002  ..P........I..............P......
002840  918004DE 4710C880  968004DE 920004A7  411004DC 482002D2  41700005 41220010  .......H..............K.........
002860  95822000 4770C878  58802004 8D178031  4770C878 92512000  4670C85C 928304A7  .......H...........H........H*....
002880  4150CC9D 41550001  D5000373 50014770  C8849550 50004720  C8BE9550 50024720  .........N........H.......H.......
0028A0  C8BE4820 02D24A20  02A694FD 200F9601  20009581 20004770  C8BE9283 20004155  H....K.................H.........
0028C0  0001D200 50005001  95005001 4770C8BE  48300372 5870036C  88300001 1A73D707  ..K...........H..............P.
0028E0  70007000 487002DC  1A73D707 70007000  48700372 41400010  1B748A70 00014A70  ..........P........... ..........
002900  02DED707 70007000  D500CEE1 03734770  C91A9200 CEE147F0  C9445870 03680540  ..P......N........I.......0I......
002920  D5010373 70004780  C9389500 70004177  00050774 47F0C944  0540D204 70007005  N........I.............0I.. K......
002940  47F0C92A 88300003  4233CEE2 4570BC34  58E0CCC0 47F0E224  41210003 4580BBF6  .0I.........S.........0S........6
002960  96801002 18761220  4770C970 47F0C9BE  41220000 4590C994  47F0C980 4590C9B4  ..........I..0I........I..0I....I.
002980  4590C632 41880000  19284770 C97C9601  400007F6 4150CC9E  41550001 D5005000  ..F.........I... ..6.........N...
0029A0  02A74770 C9981B44  43450000 4A4002D2  065007F9 95505000  4720C9A6 07F74120  ....I........ .K...9.......I..7..
0029C0  00044111 00004590  C9944530 C9F84890  02A68890 00014A90  02E04530 CA4AD500  .........I...I8..............N.
0029E0  02E30373 4770C9F0  489002DE 4530CA4A  4130C9F0 4590C9B4  91014000 07134590  .T....I0..........I0..I... .....
002A00  C6321894 48900836  41990007 4188002C  951D9000 4770CA32  58880004 95008000  F...........................
002A20  07735918 00004780  CA424188 000447F0  CA1C5912 80000773  12224770 CA42947F  ..............0..............
002A40  10049601 400047F0  C9F09889 90001288  07B34189 00084199  000347F0 CA104570  .... ..0I0..................0....
002A60  CAD89300 10004770  CA728E37 100547F0  06681B22 BF271005  4780CA82 91802002  .Q.............0.............
002A80  07181923 07889680  10049282 A0005880  A0045020 803047F0  B2D84570 CAD85820  ..........................0.Q...Q..
002AA0  10044122 00001923  4780CAB6 9101A00F  47100668 07F89200  10009180 10044780  ..........................8.........
002AC0  06681B22 4570C9C2  91801004 078641BB  001E45F0 056C07F6  18104121 00074580  ......IB..........0...6.........
002AE0  BBF69253 04599583  04A94770 B2F84180  0500183A 48300836  BF3F3008 0777D501  .6.........8.................N.
002B00  037202A6 077807F7  41500010 4170CD45  1BAABFA1 70004770  CB244177 00014650  .......7.....................
002B20  CB1207F8 89A00004  1B225890 039C4540  99C447F0 CB3A4120  00014160 06064AA0  ...8.......... .D.0........-....
002B40  02D245F0 CB74926D  A0009200 04C39500  04CD4780 CB0807F8  5010CD30 5070CD34  .K.0.........C.........8........
002B60  88700004 4177CD45  95007000 4780CBBC  41F0C8C0 92007000  D60FCD45 CD454770  ...................0.......0........
002B80  CB86947F 047458E0  A0084110 B9BA5010  E00C5810 E0305840  E03C4130 B9E8BD37  ..................... .....Y..
002BA0  E01C50C0 E01C4770  CBB41222 4780BA58  47F0BA64 12224780  BA6407FF 41880004  ..................0..............
002BC0  58E00398 5810CD30  5870CD34 98BFEA0E  07F80700 F0F7F2F4  F7F3F2F0 F55C0000  ..................8..072473205*..
002BE0  00083F37 D2702000  00000000 0000205F  00000008 7AE463D0  00000014 1DD76000  ....K.................U.......P-.
002C00  00083F37 D2702000  000000CD 00000049  00A6B979 00004650  018B8200 0083D600  ....K.......................O.
002C20  00000585 00000000  00000D05 00002710  0064F0F7 F2F4F7F3  001F1C1F 1E1F1E1F  ..................072473.........
002C40  1F1E1F1E 1F000000  00000020 00000000  000000FE 00060018  000E585B C2C1E3E3  ..........................$$BATT
002C60  D5C15B5B C2C5D6D1  F3400005 C2C74040  40E2D740 C6C7D700  0000340C 00003430  NA$$BEOJ3 ..BG    SP FGP.......
002C80  0C002418 18878787  87808080 80807D80  80808080 80808080  80800102 03050050  ..............................
002CA0  40302010 00000000  00000000 00000000  00005D88 00005D8C  00005D8C 00005DAC   ..............................
002CC0  000048EE 00006C48  FF0000FF 00000100  0000730F 5B5BC1C2  C5D9D9D6 00000001  ..................$$ABERRO.....
002CE0  00000002 040403A5  00000000 00007237  00FFFFFC 0003D9E9  C1C2C1F3 C1F5D9D1  ..................RZABA3A5RJ
002D00  C1C1E5F1 07000000  00008004 0C000006  00002E20 00006C58  000000F0 0000000F  AAV1.....................0.....
002D20  00000002 00040400  00010800 000007FF  02004C2E 01006048  00000606 0003D0EB  ..................-.........
002D40  00000000 00000000  00000000 00000000  00000000 000009E0  104010EE 118C05F2  ..........................2
002D60  11E42486 1338134E  136A15BC 138413B4  13D60520 0E90142A  14321442 144E146E  .U.....+.........0..........+..
002D80  14761552 158A1598  0F3A1724 0F3A0500  17320500 05000500  17661784 05000500  ..............................
002DA0  14902654 27842958  2A9A2A5E 050019A8  05000500 05000500  05000500 1A761688  ..............................
002DC0  05001A8C 1A941A9C  1AC81ACE 1ADA1C86  05000500 1AE61AEE  05001AF8 1B201B2C  .........H...........W.....8....
002DE0  05000500 1B381B5A  1B621B6C 05000E8C  1B780500 05001B8A  1BB80000 2C851000  ..............................
```

```
002E00  00005C60 2C861000  00005CA8 2C871000  00005D38 2C881000  00005CF0 00000000  ..*-.......*.............*0....
002E20  07002D20 40000006  31002D22 40000005  08002E28 00000000  08006C50 0C000800  .... ........ ..... ..... .....
002E40  86006C58 60000168  86006DC0 60000168  92002D22 20000005  86006C58 600005E0  ....-........-.............-....
002E60  92002D22 20000005  04004F44 20000018  13002C46 20000001  1A002C46 60000005  ..........................-....
002E80  16002C4E 20000004  07002C4C 40000006  39002C4E 60000004  08002E90 00000000  ...+........ .......+-..........
002EA0  1A002C46 50000005  08002EA8 5B5BC2D6  93002EB0 60000001  08002EB8 60000001  ..............$$BO....-........-...
002EC0  08002EC0 00000000  03002EC0 00000001  01002C6C 60000004  080075C8 00000A01  ..................-.......H....
002EE0  00000000 00000000  06070809 0A0B0C0D  0E0F5B5B C2C4E4D4  D7401700 D2008018  ..................$$BDUMP ..K...
002F00  20000050 00006040  00006178 00005DD0  02780000 0002000B  00000000 00000000  .......- ../.....................
002F20  02780000 00020000  00000000 00100000  39200036 00000000  00000000 00200000  ................................
002F40  3880006C 00000000  00000000 00300000  37E000A2 00000000  00000000 00400000  ..............................  ..
002F60  374000D8 00000000  00000000 00500000  00000000 00000000  00000000 00000000  . .Q............................
002F80  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
   SAME AS 00000000
003000  00000000 00000000  00000000 00000000  8000C1D9 00000000  00004FD0 000E2880  ..................AR............
003020  7000C2C7 8003C000  00005040 000E2880  8000C6F4 80007000  000050F8 00442800  ..BG.......  .....F4.......8....
003040  8000C6F3 80007800  00005180 007A2800  8000C6F2 80008000  00005268 00802800  ..F3.............F2............
003060  8000C6F1 80008800  00005320 00E60C00  80000000 00000000  000053D8 00000000  ..F1.........W.............Q....
003080  80000000 00000000  00005490 00000000  80000000 00000000  00005548 00000000  ................................
0030A0  80000000 00000000  00005600 00000000  80000000 00000000  000056B8 00000000  ................................
0030C0  80000000 00000000  00005770 00000000  80000000 00000000  00005828 00000000  ................................
0030E0  80000000 00000000  000058E0 00000000  80000000 00000000  00005998 00000000  ................................
003100  80000000 00000000  00005A50 00000000  00000000 00000000  00000000 00000000  ................................
003120  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
   SAME AS 00000000
003220  00000000 00000000  000E447A B0E60E28  2828280C  08FF08FF  09FF0AFF 0EFF24FF  ..............W.................
003240  24FFFFFF FFFFFFFF  24FFFFFF 2400FFFF  FFFF24FF  24FF24FF  24FFFFFF FFFFFFFF  ................................
003260  FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  FFFFFFFF  FFFFFFFF FFFFFFFF  ................................
   SAME AS FFFFFFFF
0032A0  FFFFFFFF FFFFFFFF  0EFFFFFF 24FFFFFF  FFFFFFFF  24FFFFFF  2400FFFF FFFFFFFF  ................................
0032C0  FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  FFFFFFFF  FFFFFFFF FFFFFFFF  ................................
   SAME AS FFFFFFFF
003300  FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  0EFFFFFF  24FFFFFF FFFFFFFF  ................................
003320  24FFFFFF 2400FFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  FFFFFFFF  FFFFFFFF FFFFFFFF  ................................
003340  FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  FFFFFFFF  FFFFFFFF FFFFFFFF  ................................
   SAME AS FFFFFFFF
003380  0EFFFFFF 24FFFFFF  FFFFFFFF 24FFFFFF  2400FFFF  FFFFFFFF  FFFFFFFF FFFFFFFF  ................................
0033A0  FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  FFFFFFFF  FFFFFFFF FFFFFFFF  ................................
   SAME AS FFFFFFFF
0033E0  FFFFFFFF FFFFFFFF  FFFFFFFF 0EFFFFFF  24FFFFFF  FFFFFFFF  24FFFFFF 2400FFFF  ................................
003400  FFFFFFFF FFFFFFFF  FFFFFFFF FFFFFFFF  FFFFFFFF  FFFFFFFF  0150FF00 630000F8  ................................8
003420  34180000 000EFF00  400000F8 34240000  0150FF00  630402F8  34300000 00000000  ........ ..8.........8.........
003440  00002028 FFFFFFFF  0001FF00 D10200F8  0002FF00  D10200F8  0003FF00 D10200F8  ..........J..8....J..8....J..8
003460  0004FF00 D10200F8  0005FF00 D10200F8  0006FF00  D10200F8  0007FF00 D10200F8  ....J..8....J..8....J..8....J..8
003480  0008FF00 D10200F8  000CFF00 110000F8  000DFF00  210000F8  000EFF00 400000F8  ....J..8........8........8.... ..8
0034A0  001CFF00 110000F8  001DFF00 210000F8  001EFF00  400000F8  001F0300 000010F8  ........8........8.... ..8.....8
0034C0  002CFF00 110000F8  003AFF00 D00000F8  003BFF00  D00000F8  003CFF00 110000F8  ........8........8........8.....8
0034E0  004CFF00 110000F8  002DFF00 210000F8  003DFF00  210000F8  004DFF00 210000F8  ........8........8........8.....8
003500  002EFF00 400000F8  003EFF00 400000F8  004EFF00  400000F8  0080FF00 C00000F8  .... ..8.... ..8.+.. ..8.....8
003520  0081FF00 C00000F8  0082FF00 C00000F8  0083FF00  C00000F8  0084FF00 C00000F8  ........8........8........8.....8
003540  0085FF00 C00000F8  0130FF00 620002F8  0131FF00  620102F8  0132FF00 620202F8  ........8........8........8.....8
003560  0133FF00 620302F8  0150FF00 630402F8  0151FF00  630502F8  0152FF00 630602F8  ........8........8........8.....8
003580  0153FF00 630702F8  0280FF00 52C302C0  0281FF00  52C302C0  0282FF00 52C302C0  ........8.....C........C.....C...
0035A0  0283FF00 52C302C0  FF000000 00000000  FF000000  00000000  FF000000 00000000  .....C..........................
0035C0  FF000000 00000000  FF000000 00000000  FF000000  00000000  FF000000 00000000  ................................
0035E0  FF000000 00000000  FF000000 00000000  FF000000  00000000  FF000000 00000000  ................................
003600  FF000000 00000000  00000000 00000000  00000001  00010001  00000000 00000000  ................................
003620  00000000 00000000  00000000 00000000  00000000  00000000  00000000 00000000  ................................
003640  00000000 00000000  0000001F 00000000  00000000  00000000  00000000 00000000  ................................
```

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003660  00000000 00000000  00000000 00000000  02013618 01013818  FF000000 03000000  ................................
003680  04000000 05000000  06000000 07000000  08000000 09000000  0A000000 0B000000  ................................
0036A0  0C000000 0D000000  0E000000 0F000000  10000000 11000000  12000000 13000000  ................................
0036C0  14000000 15000000  16000000 17000000  18000000 19000000  1A000000 1B000000  ................................
0036E0  1C000000 1D000000  1E000000 1F000000  20000000 21000000  22000000 23000000  ................................
003700  24000000 25000000  26000000 27000000  28000000 29000000  2A000000 2B000000  ................................
003720  2C000000 2D000000  2E000000 2F000000  30000000 31000000  FF000000 00000000  ................................
003740  F0F761F2 F461F7F3  D800D800 00000000  00000000 00000000  D5D640D5 C1D4C540  07/24/73Q.Q.............NO NAME
003760  00000000 00000000  00000000 00000050  000BBFFF FD5ECED2  8000CE50 00953441  .........................K......
003780  34483670 36710000  3228322E 323438F0  F7F2F4F7 F3F2F0F5  00003010 00000000  ...............072473205........
0037A0  3BA00000 31083188  31F80010 00000050  00000000 00000000  00002BD4 2F100000  .........8.................M....
0037C0  00000000 027810E0  00000360 C0C00040  40404040 40404000  40404040 40404000  ..........-...         .       .
0037E0  F0F761F2 F461F7F3  D800D800 00000000  00000000 00000000  D5D640D5 C1D4C540  07/24/73Q.Q.............NO NAME
003800  00000000 00000000  00000000 00000040  000BBFFF FD5ECED2  8000CE50 00953441  .............. .........K.......
003820  34483670 36710000  3228322E 323438F0  F7F2F4F7 F3F2F0F5  00003010 00000000  ...............072473205........
003840  3B280000 31083188  31F80010 00000040  00000000 00000000  00002BD4 2F100000  .........8.... ............M....
003860  00000000 027810E0  00000360 C0C00040  40404040 40404000  40404040 40404000  ..........-...         .       .
003880  F0F761F2 F461F7F3  D800D800 00000000  00000000 00000000  D5D640D5 C1D4C540  07/24/73Q.Q.............NO NAME
0038A0  00000000 00000000  00000000 00000030  000BBFFF FD5ECED2  8000CE50 00953441  .........................K......
0038C0  34483670 36710000  3228322E 323438F0  F7F2F4F7 F3F2F0F5  00003010 00000000  ...............072473205........
0038E0  3AB00000 31083188  31F80010 00000030  00000000 00000000  00002BD4 2F100000  .........8.................M....
003900  00000000 027810E0  00000360 C0C00040  40404040 40404000  40404040 40404000  ..........-...         .       .
003920  F0F761F2 F461F7F3  D800D800 00000000  00000000 00000000  D5D640D5 C1D4C540  07/24/73Q.Q.............NO NAME
003940  00000000 00000000  00000000 00000020  000BBFFF FD5ECED2  8000CE50 00953441  .........................K......
003960  34483670 36710000  3228322E 323438F0  F7F2F4F7 F3F2F0F5  00003010 00000000  ...............072473205........
003980  3A380000 31083188  31F80010 00000020  00000000 00000000  00002BD4 2F100000  .........8.................M....
0039A0  00000000 027810E0  00000360 C0C00040  40404040 40404000  40404040 40404000  ..........-...         .       .
0039C0  00000000 000000FF  FF000000 00000000  00000000 00000000  00000000 00000000  ................................
0039E0  00500000 00000000  00000019 00000000  00000000 00000000  00510000 00000000  ................................
003A00  00000019 03E80000  00000000 00000000  00790000 00000000  00000013 03E80000  .....Y.......................Y..
003A20  00000000 00000000  00500000 00000000  00000019 00000000  00000000 000000FF  ................................
003A40  FF000000 00000000  00000000 00000000  00000000 00000000  00500000 00000000  ................................
003A60  00000019 00000000  00000000 00000000  00510000 00000000  00000019 03E80000  .............................Y..
003A80  00000000 00000000  00790000 00000000  00000013 03E80000  00000000 00000000  .......................Y........
003AA0  00500000 00000000  00000019 00000000  00000000 000000FF  FF000000 00000000  ................................
003AC0  00000000 00000000  00000000 00000000  00500000 00000000  00000019 00000000  ................................
003AE0  00000000 00000000  00510000 00000000  00000019 03E80000  00000000 00000000  .......................Y........
003B00  00790000 00000000  00000013 03E80000  00000000 00000000  00500000 00000000  .............Y..................
003B20  00000019 00000000  00000000 000000FF  FF000000 00000000  00000000 00000000  ................................
003B40  00000000 00000000  00500000 00000000  00000019 00000000  00000000 00000000  ................................
003B60  00510000 00000000  00000019 03E80000  00000000 00000000  00790000 00000000  .............Y..................
003B80  00000013 03E80000  00000000 00000000  00500000 00000000  00000019 00000000  .....Y..........................
003BA0  00000000 000000FF  FF000000 00000000  00000000 00000000  00000000 00000000  ................................
003BC0  00500000 00000000  00000019 00000000  00000000 00000000  00510000 00000000  ................................
003BE0  00000019 03E80000  00000000 00000000  00790000 00000000  00000013 03E80000  .....Y.......................Y..
003C00  00000000 00000000  00500000 00000000  00000019 00000000  482000BA 47F0901A  .............................0..
003C20  58800360 909B801C  189845A0 9064989B  901C1BFF 43F000BA  43FF048C 5AF00348  ...-...................0......0..
003C40  5920F008 47709646  9815F004 95B03004  47809646 18A5D300  04503004 91060045  ..0.......0...........L.........
003C60  47809054 58F00418  47F0F26E 95FF3002  4780907A 4BA00836  48F0A000 40F00016  .....0...02................0.. 0..
003C80  D20102A6 A00C4BA0  02F440A0 03724AA0  02D29101 041147E0  908A58F0 041847F0  K........4 ......K..........0...0
003CA0  F33A1211 47809132  5010CD34 9140100C  4780911A 58800014  91028086 471090B0  3........... ...................
003CC0  9140A00C 4780911A  920C0459 BE37003D  91601006 47E090E0  58000040 5000CD30  . ...............-......... ....
003CE0  5890039C 45709882  BEF70041 5810101C  58E00398 4150EB16  5880100C 057847F0  .........7......................0
003D00  93AC47F0 911A5820  03189101 21A64770  911A4400 BA0E92AE  21A74030 21A4D207  ...0...................... ...K.
003D20  219C1000 D20121B0  CCFC4560 9C704860  035E9200 04595810  CD349160 100647E0  ....K......-...-............-....
003D40  91325800 CD305000  0040D501 0044CE3C  478093B4 D5010044  CE3E4780 93B49533  ......... N.........N...........
003D60  30044780 91569534  30044770 916C9180  30054780 916C9180  03D80786 947F03D8  ...........................Q.....Q
003D80  47F096A2 91020044  471096A2 91390045  477096A2 91800044  478091C2 96040044  .0.........................B....
003DA0  95003004 477091C2  910A02B1 07764880  02D29580 80004780  91B69102 80084780  .......B.........K..............
003DC0  91AE9610 80089581  80004770 91BA9283  80009642 80084570  05B49110 00444710  ................................
```

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003DE0  91F89500 00444770  91EE9180 00450786  9601A000 95B03004  478094FC 95C03004  .8..............................
003E00  478094FC 07F6D602  00410041 477093B4  94773006 92000459  95500044 07869124  .....60.........................
003E20  00444780 94FC9540  04504780 922C9504  00444770 922C58F0  03748FFF F0384780  ....... .............0....0...
003E40  922C058F 91043006  478094FC D6011004  00449463 30069101  100C4780 925C5870  ............0..............*..
003E60  10089540 7004D200  10021000 94FE100C  47F00BC4 95500450  47709280 95513004  ... ..K..........0.D............
003E80  47809280 95014004  47809280 45F08BD2  91208008 471096A2  9180100C 4710928C  ...... ........K................
003EA0  92003003 96801002  43804004 5480CD1C  477092AC 9580A000  478092DC 9601A000  .......... .....................
003EC0  47F092DC 43880388  5A8003B0 48808000  96018000 9500035D  478092DC 58500384  .0..............................
003EE0  49805000 47B092DC  48805000 92838000  9200035D 1BFF43F0  00BA43FF 048C5AF0  ....................0........0
003F00  03485930 F00C4770  9308D703 F004F004  493002B8 47B09308  48803008 5080F00C  ....0.....P.0.0.............0.
003F20  92FF4007 43803002  43504000 42503002  4350033C 42504000  4280033C 928304CF  .. ........ ..........  .........
003F40  91201006 47809338  5890039C 458098C8  45509350 58F00418  9150FD1D 47E094FC  ................H.....0..........
003F60  94AFFD1D 47F09000  49300288 4740939A  91033007 07B55870  CC781B88 4177000C  .....0.......  ................
003F80  49307008 4770938A  91037007 47409382  94FC7007 96033007  07F51288 4770938A  ............  ..........5.......
003FA0  18875970 CC7C4770  93641278 078547F0  93781873 48307008  40707008 94FC3007  ...............0........ .......
003FC0  47F0935E 5810CD34  47F091F8 12114780  94FC9101 100C4710  93CA4870 00464070  .0........0.8.................. .
003FE0  10005870 00409144  100C4770 93DABE77  100DD601 10040044  95034006 472094E8  ..... ............D.......  ....Y
004000  95600450 47709440  9101100C 47109440  58F00014 45800DBA  41805006 D5005006  .-.....  ....... .0..........N...
004020  50134770 94349201  50060680 D5005005  50114770 9434D200  50055012 48805002  ............N.........K.........
004040  41880001 40805002  47F09440 43580000  41550001 42580000  58500014 1B009220  ....  ....0.  ......................
004060  945B9501 40064720  94E84740 945A9210  945B9120 509F47E0  94664A00 CD284B70  .$..  ....Y.  .....$............
004080  04821887 4570BCA0  9561F000 477094E8  4A00CD28 4570BCA0  955CF000 478094E0  ........../0....Y.........*0.....
0040A0  95004006 47809498  91A05097 47E094A8  91815097 47B094A8  954EF000 478094DC  ..  ........................+0.....
0040C0  9550F000 477094E8  9111509F 47E094C0  95014006 478094E8  95600450 477094D0  ..0....Y..........  ....Y.-.....
0040E0  9620A00F 47F094D4  96203006 91805097  478094E0 96045097  96401002 96011004  .....0.M.............  ......
004100  91270044 4770923A  91041002 4780925C  96043006 18561B88  438000BA 43880484  ..............*.................
004120  5A800354 95C03004  47809524 95B03004  47809524 91108000  4710957C 1BFF43F0  ................................0
004140  00BA43FF 048C5AF0  03485830 F00C4930  02B847B0 95424830  30081803 05504930  .......0....0..................
004160  02B84780 95524830  30084130 3008D500  300000BA 47D0957C  5830F000 4550957C  ..............N...........0.....
004180  49300288 47B09574  48303008 19300786  41303008 91033007  471095A8 95FF3002  ................................
0041A0  07854570 05B49160  100647E0 0BC69198  30060775 5890039C  4580900C 47F00BC6  ........-.....F.............0.F
0041C0  5870CC78 4177000C  49307008 477095AC  91037007 477095AC  183747F0 958A9106  ............................0....
0041E0  004592FF F00858F0  04184780 95E49602  0411D702 00410041  47F0F26E 95014004  ....0..0.....U....P......02... .
004200  477095F4 9506F6C6  4780F32E 913F0045  4770962E 91AF0044  07869560 30044780  ...4..6F..3.............-....
004220  962E9551 30044700  962E9514 00444770  962E45E0 BBD29104  800347E0 0DF29644  ....................K........2..
004240  800847F0 96965870  00484180 70085080  00404020 00BA9680  300647F0 908A5830  ...0.............  ........0....
004260  F000D500 300000BA  472094FC BD213001  47809664 41303008  47F0964A 91033007  0.N.....................0......
004280  47E0968E 5870CC78  4177000C 49307008  47709670 91037007  47709670 91807006  ................................
0042A0  47E0968E 18374570  05B447F0 9044D201  0044CC52 D2020041  00495820 03189101  ............0..K.....K..........
0042C0  100C4710 923A9101  21A64780 96BE4550  9CB047F0 0538D72B  219C219C 921021A6  ..................0..P.........
0042E0  1B55BF57 00414780  96F09204 21A69101  10034780 96F04B50  04824170 CEE01975  ..........0...........0..........
004300  472096F0 BE571009  D207219C 00409130  00454770 9C349102  004447E0 973A9620  ...0....K....  .................
004320  10029120 100C4710  97609101 10024710  97F094DF 10029580  30044740 972E95D3  .........-.......0.........  ...L
004340  300447D0 9C344150  CE684580 976C5820  03189560 04504780  97F89540 04504770  ..................-.....8. ....
004360  9C349501 21B04770  9C349602 1003D207  0040219C 47F091C2  41501010 BF580040  ...............K..  ...0.B.......
004380  418097E2 50500048  41509C28 48203000  9C002000 4740978A  9D002000 47209780  ...S.................  ..........
0043A0  07159106 00454780  979E9608 041158F0  041847F0 F26E9139  00450775 91020044  ................0...02..........
0043C0  07759108 00440778  95D13004 474097C6  95D33004 472097C6  95400044 07889550  .........J...  .F.L.....F.  ......
0043E0  00444770 97789501  035D4770 97DE9D00  200047F0 977847F0  94FC5820 031847F0  ..................0...0.......0
004400  97560000 00000000  45509CB0 47F0917C  58200318 95613004  47809C34 43803003  ..............0.......  /..........
004420  41880001 42803003  58801008 18004570  BCA045E0 98DED203  21A8F002 417098CC  ........................K...0.....
004440  910821A1 07779563  30044780 99B89110  21B00777 91082181  47109912 91012180  ................................
004460  471098AC 91402180  07779108 21B04710  988C4170 98D49124  21B00777 91022181  .....  ................M...........
004480  07779180 21B04770  9C349102 21B04710  993C9160 21B14770  99929101 21A10777  ..................-.............
0044A0  47F09C34 95013003  47D098BC 4570999C  95FF3003 47809C34  910F3003 478098BC  .0..............................
0044C0  47F098DC 91802180  47109C34 950A3003  47209C34 4150CE70  4580976C 58200318  .0.............................
0044E0  47F098DC 95013003  47F098D8 950A3003  47209C34 947F3006  12114780 94FC4930  .0........0.Q...................
004500  02B84740 94FC9501  30034770 94FC9563  30044740 990A45E0  BBD29140 80064780  ... ..............  .....K.  ....
004520  94FC92E2 21A747F0  9C349102 21B14710  98B44570 99A0D501  CC4EF002 47709884  ...S...0.............N..+0.....
```

004540	968021A6	91041003	471098D4	96081003	47F09756	5880219C	4B800482	BE87CEA9
004560	457099A0	9101CC46	47809978	9513CC51	47B0998E	95603004	4770996C	9509CC51
004580	47B0998E	4880CC50	41880001	4080CC50	4150CE88	50500048	41509044	48203000
0045A0	45809778	07F59620	1003D600	100321B1	47F09756	9220CE7C	4150CE78	4580976C
0045C0	58200318	9240CE7C	D20321A8	CC4707F7	913421B0	477099D8	911021B2	471099E0
0045E0	910821B0	478099E8	914021B2	471099E8	95013003	477099E8	45E0BBD2	96408006
004600	918021B1	47109C34	911021B0	477098D4	916021B0	477098CC	918021B0	47109C34
004620	910821B1	47109928	910421B0	471098D4	914021B1	47109A4C	910821B0	47109A6A
004640	912021B1	47109A54	910521B1	47709C34	911021B2	47109A5C	910121A1	471098D4
004660	47F09C34	96401003	47F09756	96201003	47F09756	43703003	06704270	300347F0
004680	98DC9140	21B24780	98D49101	21B14710	9C34D202	9BE921BF	D2019BEE	21C25850
0046A0	9BE85B50	9BEC5880	219C4B80	0482D201	9BF28006	90129BF8	411021C4	41200003
0046C0	18055500	9BF047B0	9AFE9500	10004780	9AF29110	80044710	9AF29502	40044770
0046E0	9AE4ACFA	9ADD58F8	00041FFF	5000D700	F0001000	AD00CD04	47F09AF2	4570BCA0
004700	45E098DE	D700F000	10004110	10014150	50014620	9AA81878	91807004	47109BAE
004720	98129BF8	D7079BF8	9BF8D701	21A221A2	D5039BE8	9BF04780	9B5858F0	9BF05BF0
004740	9BE84740	9B3240F0	21A29120	70044710	9B584170	70085070	9C24D202	219D9C25
004760	964021A1	960C21A0	94FD21A0	47F09756	910121C7	47109BA6	91407004	47809B4C
004780	41707008	95087000	47709B78	58707000	41F09C18	91107000	47109B8C	9212F000
0047A0	41F0F008	5070F000	9208F000	D2049BFA	21B84180	9C005080	004847F0	99809610
0047C0	21B047F0	99E058F0	9BE858F0	9BF050F0	9BE85B50	9BF04180	80089508	80004770
0047E0	9BCE5880	8000D201	9BF28006	122247D0	9AFE47F0	9AA812FF	47809C28	07FE0000
004800	00000000	00000000	00000000	00000000	00000000	00000000	07004810	40000006
004820	31004812	40000005	08004820	00000001	00000000	70000005	00000000	00000000
004840	58200318	922021A7	45509CB0	403021A4	41110000	501021AC	185A4B50	02D24250
004860	219C1211	47809C6C	95024004	47809C64	493002B8	47B09C6C	960C21A0	96201002
004880	47F09756	96903006	41502010	9101201A	47109C90	95E92007	47809C9C	9285CC88
0048A0	96800359	47F09C9C	4155002C	9101500A	47709C90	D22B5000	219C9601	500A95AE
0048C0	21A70786	47F09338	4170CE68	50700048	96107004	482000BA	9C002000	94EF7004
0048E0	9D002000	47209CC8	58200318	07F545F0	E0E21835	41800004	11881E98	8738E01C
004900	18705470	30004780	E00E1F98	45F0E13C	47B00500	41800003	43701001	14784380
004920	20001487	4770E070	18809140	100147E0	E04C1244	47800500	16848970	00191678
004940	56702000	50702000	96012000	95001000	41110004	4770E01E	174447F0	E0A89180
004960	100147E0	E0961835	41800004	11881E98	8738E090	18705470	30004780	E0821923
004980	47D0051A	41400004	18805480	20004780	E0A84140	00085880	A0045040	802C5010
0049A0	80301244	07869180	100107E6	17331876	4560B31C	18674870	03728870	00034880
0049C0	10024085	70009610	200094FE	A00007F6	5880A004	BF1F8030	4780E110	18214580
0049E0	B8F61777	43701000	1E771E77	1E714127	00034580	B8F69500	70004770	05004100
004A00	00014870	03728870	00048900	70001744	D5010372	02A64770	E1321840	89400010
004A20	5890CCB0	5850CCBC	07FFBF2C	10028F22	E1121879	5880CCB4	1E224730	E1561878
004A40	5880CC88	1E2247C0	E1625870	CCB81885	88200010	1E271928	07FF45F0	E0E21604
004A60	18291211	47D0E190	45F0E13C	47B00500	41700005	17889102	10014710	E1941777
004A80	13800680	18A41211	4740E1B2	4780E1AA	91401001	4710E1B2	54A02000	4770E204
004AA0	BFA72001	14A88EA7	200116A0	17A04770	E2049110	20004270	20004780	E20418A2
004AC0	4130001E	58253000	45F0E140	17770670	192A4770	E1FA1883	89800003	4A8002D2
004AE0	96018000	40753000	1A371A37	47B0E1D6	182A1211	4720E216	41220004	19254740
004B00	E19007F6	95001000	41110004	4770E17A	07F61711	061045F0	E11047F0	E1709140
004B20	00874710	E0CA9180	00870786	58500368	58300050	5530CCC8	07D6D203	00505001
004B40	9500CEE1	4780E082	48A002D2	4AA0CEE0	9500A001	4770E082	4870CEE0	4550B45E
004B60	98347000	123347D0	E0829108	A0044710	E05E9601	A0009608	A00407F6	94F7A004
004B80	12444740	E078D501	CEE00370	4770E088	96200359	07F69680	3002D707	70007000
004BA0	4580E094	07F64580	E0949834	700047F0	B41A5850	0368D200	CEE15000	BF4F5001
004BC0	95005005	4780E0C2	BF3F5006	1B34BE3F	5001D200	50005005	41550005	47F0E0A2
004BE0	D2045000	500507F8	18AA43A0	03BD5AA0	03B058A0	A0049102	A00947E0	E0E894FD
004C00	A00947F0	E00848A0	02D29601	A0089580	A0004770	E0089283	A00047F0	E0080400
004C20	61181004	04100000	60B01004	04100A00	2D080306	06FF0100	60481004	04100900
004C40	5DD81004	0410FF90	5FE01004	04100700	5EA81004	04100800	5F101004	04100500
004C60	5F781004	04100600	5E401004	04100B00	2D080306	06FF0C00	0000FF00	FFFF0D00
004C80	0000FF00	FFFF0E00	0000FF00	FFFF0F00	0000FF00	FFFF1000	0000FF00	FFFF1100
004CA0	0000FF00	FFFF1200	0000FF00	FFFF1300	0000FF00	FFFFFF00	0000FF00	FFFF00FF

```
004CC0  00000000 FF000000 00FF0000 0000FF00  000000FF 00000000 FF000000 00FF0000  ................................
004CE0  0000FF00 000000FF 00000000 FF000000  00FF0000 0000FF00 000000FF 00000000  ................................
004D00  FF000000 00FF0000 0000FF00 00001000  00000000 80008000 80008000 00000000  ................................
004D20  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
   SAME AS 00000000
004D80  00000000 00000000 00000000 00000000  00000000 5B5BC1C2 C5D9D9D6 41143DD6  ....................$$ABERRO...0
004DA0  054C2400 10002ED8 02000009 34881510  00000000 00006048 50000000 00000000  .....Q..........-.......
004DC0  00000000 00000000 00000000 00000000  1000C510 02000000 34880400 00000000  ................E...............
004DE0  0000C4C0 40100000 00000000 00000000  00000000 00000000 00000000 1000C510  ..D. ........................E.
004E00  02000000 34880400 00000000 0000C4C0  40100000 00000000 00000000 00000000  ..............D. ................
004E20  00000000 00000000 10005FE0 0E000009  34880400 00000000 00005FE0 50000000  ................................
004E40  00000000 00000000 00000000 00000000  00000000 00002ED8 02000017 00000400  ......................Q.........
004E60  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
004E80  00002ED8 02000017 00000400 00000000  00000000 00000000 00000000 00000000  ...Q............................
004EA0  00000000 00000000 00000000 10002ED8  02000000 34880400 00000000 00005EA8  ..............Q.................
004EC0  50000000 00000000 00000000 00000000  00000000 00000000 00002ED8 02000017  ............................Q...
004EE0  00000400 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
004F00  00000000 10002ED8 02000009 34880400  00000000 00006048 50000000 00000000  .......Q............-.........
004F20  00000000 00000000 00000000 00000000  00002ED8 02000017 00000400 00000000  ....................Q...........
004F40  00000000 00000000 00000000 00000000  00000000 00000000 00000000 0003BFFF  ................................
004F60  00000044 0003C000 000BC000 0000D800  0000D800 0003C000 0004C000 0000D800  ..............Q...Q...........Q.
004F80  0000D800 0004C000 0006C000 0000D800  0000D800 0006C000 0008C000 0000D800  ..Q...........Q...Q...........Q.
004FA0  0000D800 0008C000 000AC000 0000D800  0001A000 000AC000 000BC000 01500004  ..Q...........Q.................
004FC0  00001702 0000173B 01000000 00000000  0000AB90 00000000 070D0000 000068BE  ................................
004FE0  800068C6 800068A4 8000695C 00006958  00000278 00006980 000067A0 00006980  ...F.......*....................
005000  00006840 00000045 00003010 0000C276  00003010 00006A90 00000001 00000010  ... ..........B.................
005020  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
005040  00000000 00000000 040C0000 0000824C  00005040 00003020 00001000 00002000  ...................... ............
005060  00003000 00008846 00000001 0403D888  00002D08 0003E448 0000730F 00006C8C  ..............Q.......U.........
005080  00000800 00000606 00006C48 0003EA28  A00005F6 00008852 0C06209A D7C8C1E2  ..................6.........PHAS
0050A0  C55C5C5C 03C07801 03C0780D 0C010054  000D000C 01000000 00000000 80007237  E***.............................
0050C0  00FFFFFC 00033240 00003568 0003DA10  1006062E 00000606 0003E568 80000ADA  ....... ..................V.....
0050E0  00007C90 00003020 00001000 00002000  00003000 900009FA 0003DA10 00000000  ................................
005100  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
   SAME AS 00000000
005B80  00003448 00000000 0000000E 00003498  02004C2E 00003020 00003548 00000000  ................................
005BA0  00000150 00003568 02004C2E 00003020  00003588 00000000 00000000 00003588  ................................
005BC0  00000000 00000000 00003448 00000000  00000000 00003448 00000000 00000000  ................................
005BE0  00003448 00000000 00000000 00003448  00000000 00000000 00003448 00000000  ................................
005C00  00000000 00003448 00000000 00000000  00003448 00000000 00000000 00003448  ................................
005C20  00000000 00000000 000009E1 000010EF  00001385 00001BA5 00001BB9 00000606  ................................
005C40  00000606 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
005C60  00000000 00000000 040C0000 0000B1DA  00003010 00002DFC 00001000 00002000  ................................
005C80  00003000 00000000 0000AF96 00000035  0000B618 00000006 00000000 00000150  ................................
005CA0  0000B60C 00000606 8000B0F2 00002C85  00000000 00000000 00000000 00000000  ............2...................
005CC0  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
005CE0  00000000 00000000 00000000 00000000  00000000 00000000 070E0000 00007464  ................................
005D00  00007464 00000318 01007318 00002000  00003000 8000224A 00000000 01007318  ................................
005D20  00002D08 00007318 00003488 00004D94  000005E0 00000606 00006C50 000078F8  ..........................8
005D40  040C0000 00001EBA 800012B2 00003020  00001000 00002000 00003000 8000224A  ................................
005D60  00000000 01007318 00002D08 00007318  0000730F 0000006F 800012B2 00000606  ................................
005D80  00006C50 000078F8 00000000 00000000  00000000 00000000 00000000 00000000  .......8........................
005DA0  00000000 00000000 00000000 FFFFFFFF  FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF  ................................
005DC0  FFFFFFFF FFFFFFFF FFFFFFFF 00000000  09005DE8 2000000C 00000000 00000004  ..................Y.............
005DE0  00005DD0 00005DD8 C940C1D4 40D3D6D6  D7C9D5C7 D4C5D5E3 40D6E4E3 40D6C640  .......QI AM LOOPINGMENT OUT OF
005E00  E2C5D8E4 C5D5C3C5 4B000000 00000000  00000000 00000000 00000000 00000000  SEQUENCE........................
005E20  00000000 00000000 00000000 00000000  00000000 00000000 09005E50 2000000C  ..............................
005E40  00000000 00000004 00005E38 00005E40  C940C1D4 40D3D6D6 D7C9D5C7 C1E8D9D6  .............. I AM LOOPINGAYRO
005E60  D3D34040 C3C1D5C3 C5D3D3C5 C440C4E4  C540E3D6 40C3D6D5 E3D9D6D3 40E2E3C1  LL  CANCELLED DUE TO CONTROL STA
```

```
005E80  E3C5D4C5 D5E340C5  D9D9D6D9 00000000  00000000 00000000  00000000 00000000  TEMENT ERROR.....................
005EA0  09005E88 2000000C  00000000 00000004  00005EA0 00005EA8  C940C1D4 40D3D6D6  .....................I AM LOO
005EC0  D7C9D5C7 D4C5D5E3  40D6E4E3 40D6C640  E2C5D8E4 C5D5C3C5  48000000 00000000  PINGMENT OUT OF SEQUENCE........
005EE0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
005F00  00000000 00000000  09005F20 2000000C  00000000 00000004  00005F08 00005F10  ................................
005F20  C940C1D4 40D3D6D6  D7C9D5C7 C1E8D9D6  D3D34040 C3C1D5C3  C5D3D3C5 C440C4E4  I AM LOOPINGAYROLL  CANCELLED DU
005F40  C540E3D6 40C3D6D5  E3D9D6D3 40E2E3C1  E3C5D4C5 D5E340C5  D9D9D6D9 00000000  E TO CONTROL STATEMENT ERROR....
005F60  00000000 00000000  00000000 00000000  09005F88 2000000C  00000000 00000004  ................................
005F80  00005F70 00005F78  C940C1D4 40D3D6D6  D7C9D5C7 40F040F0  C34BE4E3 40D6C640  ........I AM LOOPING 0 OC.UT OF
005FA0  E2C5D8E4 C5D5C3C5  4B000000 00000000  00000000 00000000  00000000 00000000  SEQUENCE........................
005FC0  00000000 00000000  00000000 00000000  00000000 00000000  09005FF0 2000000C  ............................0....
005FE0  00090000 00400004  00005FD8 00005FE0  C940C1D4 40D3D6D6  D7C9D5C7 40C6D6D9  ..... .....Q....I AM LOOPING FOR
006000  40C3D6D4 D4E4D5C9  C3C1E3C9 D6D5E24B  C540E3D6 40C3D6D5  E3D9D6D3 40E2E3C1   COMMUNICATIONS.E TO CONTROL STA
006020  E3C5D4C5 D5E340C5  D9D9D6D9 00000000  00000000 00000000  00000000 00000000  TEMENT ERROR....................
006040  09006058 2000000C  00002000 00400004  00006040 00006048  C940C1D4 40D3D6D6  ..-.......... ....- ..-.I AM LOO
006060  D7C9D5C7 C9C440E2  E3C1E3C5 D4C5D5E3  4BD3D3C5 C440C4E4  C540E3D6 40C3D6D5  PINGID STATEMENT.LLED DUE TO CON
006080  E3D9D6D3 40E2E3C1  E3C5D4C5 D5E340C5  D9D9D6D9 00000000  00000000 00000000  TROL STATEMENT ERROR............
0060A0  00000000 00000000  090060C0 2000000C  00000000 00000004  000060A8 000060B0  .........-..............-...-.
0060C0  C940C1D4 40D3D6D6  D7C9D5C7 40F040F0  C34B40C3 C1D5C3C5  D3C5C440 C4E4C540  I AM LOOPING 0 OC. CANCELED DUE
0060E0  E3D640D6 D7C5D9C1  E3D6D940 C9D5E3C5  D9E5C5D5 E3C9D6D5  40000000 00000000  TO OPERATOR INTERVENTION .......
006100  00000000 00000000  00000000 00000000  09006128 2000000C  00000000 00000004  ..................../............
006120  00006110 00006118  C940C1D4 40D3D6D6  D7C9D5C7 C4E30000  00000000 00000000  ../.../.I AM LOOPINGDT..........
006140  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
006160  00000000 00000000  00000000 00000000  00000000 00000000  05001000 00113022  ................................
006180  0000D9D3 00010001  00870037 00001784  00007668 00000101  00000100 01010000  ..RL............................
0061A0  E01A2000 00000554  0000621C 00000008  00100018 00200028  00300038 0040004C  ..............................  ..
0061C0  00580064 0070007C  00880094 00A000A8  00B000BC 00C800D4  00E000EC 00F80104  ......................H.M.....8..
0061E0  01100118 01200128  01300138 01400158  01700188 01A001C0  01E00200 02200264  .............. ................
006200  02A802EC 00000000  00000000 00000000  00000000 00000000  00000000 00000020  ................................
006220  00000000 00000020  00000000 00000020  00000000 00000020  00000000 00000020  ................................
006240  00000000 00000020  00000000 00000020  00000000 00000020  00000000 00007900  ................................
006260  00000020 00000000  00003100 00000000  00000000 000B5E00  00000000 00000000  ................................
006280  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
0062A0  00000000 00000300  00000000 00000000  00000000 00000000  00000000 00000020  ................................
0062C0  00000000 00000020  00000000 00000000  00000000 00000000  00000000 00000000  ................................
0062E0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
   SAME AS 00000000
006320  00000000 00000000  00000000 00000020  00000000 00000020  00000000 00000020  ................................
006340  00000000 00000020  00000000 00000020  00000000 00000020  00000000 00000000  ................................
006360  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
   SAME AS 00000000
0063A0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 000FEC00  ................................
0063C0  00000000 0002F1F1  F1F1F1F1 0076418F  00000000 090F0000  00000000 00000000  ......111111....................
0063E0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
   SAME AS 00000000
006420  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000010  ................................
006440  0000C1C2 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ..AB............................
006460  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
006480  00000010 0000C1C2  00000000 00000000  00000000 00000000  00000000 00000000  ......AB........................
0064A0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
0064C0  00000000 00000010  0000C1C2 00000000  00000000 00000000  00000000 00000000  ..........AB....................
0064E0  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
006500  00000000 00000000  00000010 0000C1C2  00000000 00000000  00000000 00000000  ..............AB................
006520  00000000 00000000  00000000 00000000  00000000 00000000  00000000 00000000  ................................
   SAME AS 00000000
006760  00000000 00000000  00000000 00000000  00000300 FF000000  00FF0000 0000FF00  ................................
006780  000000FF 00000200  FF000000 00FF0000  0000FF00 000000FF  FF000000 00000000  ................................
0067A0  5B5BC2C1 E3E3D5C8  47F0F00E 28000700  40404040 40404040  40404040 40404040  $$BATTNH.00.....
0067C0  40404040 40404040  40404040 40404040  40404040 40404040  40404040 40404040
   SAME AS 40404040
```

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